DOCUMENT RESUME

ED 353 934 HE 026 195

AUTHOR Avveduto, Sveva; Moscati, Roberto
TITLE Higher Education and Employment: The Changing Relationship. Recent Developments in Continuing Professional Education. Country Study: Italy.
INSTITUTION Organisation for Economic Cooperation and Development, Paris (France).
REPORT NO OCDE/GD(91)174
PUB DATE 91
NOTE 107p.; For related documents, see HE 026 190-201.
PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC05 Plus Postage.
DESCRIPTORS Access to Education; Continuing Education; Educational Change; Educational Demand; *Educational Trends; *Education Work Relationship; Employment Qualifications; Enrollment; Foreign Countries; Government Role; Higher Education; *Professional Continuing Education; Program Administration; Public Sector; School Business Relationship; Universities
IDENTIFIERS *Italy

ABSTRACT

This report, one of a series of country studies on higher education and employment particularly in continuing professional education, looks at recent developments in Italy. Following an introduction which offers basic data on higher education in Italy, Chapter I reviews the current challenges and demands facing the Italian system, in particular in relation to the productivity of higher education and the labor market and the university reform movement. Chapter II looks at the legislative and institutional framework for continuing professional education. Chapter III offers a quantitative analysis of the role of different actors in continuing professional education: universities, and small and large private companies offering their own training programs. Chapter IV analyzes the role of the university in higher continuing professional education beginning with the legislative and institutional framework and including analysis of costs, student characteristics, faculty characteristics, admissions, course methods, and placement. Two examples illustrate continuing education programs: first, the educational activities of the National Research Council and, second, the Bocconi University post graduate program. A final section offers conclusions. Additional data are provided in appended tables and graphs. (JB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED353934

GENERAL DISTRIBUTION
OCDE/GD(91)174

HIGHER EDUCATION AND EMPLOYMENT: THE CHANGING RELATIONSHIP

RECENT DEVELOPMENTS IN CONTINUING PROFESSIONAL EDUCATION

COUNTRY REPORT - ITALY

HE026195

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

OCDE
OECD

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

OECD

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

Paris 1991

BEST COPY AVAILABLE

GENERAL DISTRIBUTION

OCDE/GD(91)174

HIGHER EDUCATION AND EMPLOYMENT: THE CHANGING RELATIONSHIP
Recent Developments in Continuing Professional Education

COUNTRY STUDY: ITALY

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

Paris 1991

37391

FOR TECHNICAL REASONS, THIS DOCUMENT IS NOT AVAILABLE ON OLIS

GENERAL DISTRIBUTION
Paris, September 1991

English text only

HIGHER EDUCATION AND EMPLOYMENT: THE CHANGING RELATIONSHIP

Project iii): Recent Developments in Continuing Professional Education

COUNTRY STUDY: ITALY

This report is one of a series of country studies prepared in the framework of the OECD Education Committee activity on Higher Education and Employment: The Changing Relationship. It deals with one of the three main topics covered by this activity, Recent Developments in Continuing Professional Education. Together with other country studies on this topic, it provides the background information for the preparation of a Secretariat general report that will be published by the OECD in 1992.

Country studies and general reports are also being made available for the other two projects included under this activity: The Flows of Graduates from Higher Education and their Entry into Working Life; Higher Education and Employment: The Case of the Humanities and Social Sciences.

The present country study on Italy has been written by Sveva Avveduto and Roberto Moscati, of the National Research Council Institute for Studies on Scientific Research and Documentation. The views expressed are those of the authors and do not necessarily commit the national authorities concerned or the Organisation.

Copyright OECD, 1991.

CONTINUING PROFESSIONAL EDUCATION IN ITALY

COUNTRY REPORT

TABLE OF CONTENT

		Pag.
Introduction	"	1
CHAPTER I		
CHANGING HIGHER EDUCATION IN ITALY: OPPORTUNITIES AND CONTRADICTIONS	"	4
Productivity of the higher education system and the labour market	"	4
The university reform: autonomy and curricula	"	7
CHAPTER II		
CONTINUING PROFESSIONAL EDUCATION AND HIGHER CONTINUING PROFESSIONAL EDUCATION:LEGISLATIVE AND INSTITUTIONAL FRAMEWORK	"	12
Introduction	"	12
Constitutional aspects	"	12
Assignment of competence to the regions	"	13
Conception of professional education	"	14
Conception and role of professional education	"	14
State competence	"	15
Responsibilities of the regions and role of the social partners	"	17
Management of the system: the roles of the various agents	"	18
Funding mechanisms	"	19
Continuing professional education of public employees and management staff	"	20
Special educational activities:underdeveloped areas; technological innovation	"	21
Notes to Chapter II	"	22

CHAPTER III Pag. 23

HIGHER CONTINUING PROFESSIONAL EDUCATION: THE ROLE OF DIFFERENT ACTORS A QUANTITATIVE ANALYSIS " 23

Strengths and weaknesses of the Italian institutional model " 23

Current situation regarding offer of higher continuing professional education: definition of the field of study " 25

Methodological aspects " 26
Structure of supply " 27
H.C.P.E. producers " 28
Product characteristics " 30
Higher professional education within companies " 33
Methodological Aspects " 33
University industry cooperation activities " 33
Large and Medium-sized companies " 35
Small and medium-sized companies " 38
Some conclusions " 39

Notes to Chapter 3 " 41

CHAPTER IV

HIGHER CONTINUING PROFESSIONAL EDUCATION: THE ROLE OF THE UNIVERSITY " 42

Legislative and institutional framework " 42

Higher continuing professional education at university level:an analysis of the existing structures " 44

Characteristics of the institutions examined " 47
Structure of the schools " 48
Links with other institutions " 49
Courses typology " 49
Costs " 50
Student characteristics " 51
Characteristics of the teaching staff " 51
Admission to course: criteria and procedures " 52
Course methods,objectives and programmes " 52
Placement " 53

Pag.

Two examples of continuing professional education at university level: " 55

Educational activities of the National Research Council " 55

The Bocconi University post graduate activity " 57

Notes to Chapter 4 " 60

CONCLUSIONS " 61

Tables
Graphs

Chapters II and III have been prepared by Lilia Infelise with the cooperation of Daniele Donati (institutional aspects) and Edoardo Marcucci (elaboration of data and interviews to companies).Paragraph 1 of chapter 4 and the relative tables have been prepared by Maria Carolina Brandi.
We wish to thank Paolo Capasso for the elaboration of the tables and graphs.

Introduction

In recent decades the approach to education in the West has been characterized by wavering attitudes. With ever worsening youth unemployment, probable over-confidence in education and professional training as a certain way of finding a job more easily has been replaced by an equally strong, and perhaps equally unjustified, lack of confidence, which culminated in the provocative message launched in the 'seventies calling for the "de-scholarization" of society and the introduction of informal educational methods. It is true that education on the whole has experienced objective difficulty in keeping up with the development of the structure of employment. If for developing countries this means lack of technical and scientific training, for the advanced countries it signifies difficulties in guaranteeing an education suitable for the needs of industry and of the tertiary and quaternary sectors.

An initial and general reciprocal impact between education and employment can be seen in the effects of the decisions taken to lower school entry age and to raise that of compulsory schooling. The by no means negligible effects these measures have had also on the labour market must be taken into consideration. Indeed on the one hand society must shoulder the cost of an earlier entry by the child into the school milieu and, on the other, the extension of the compulsory schooling period, with a delayed entry by young people to the labour market, has a considerable effect on its composition. On the other hand, it must not be overlooked that it is often the labour market which determines the educational pattern. This gives rise to cases of widespread evasion of the compulsory schooling obligations but also to school careers which are prolonged precisely because of the lack of outlets.

The effects of technological change are reflected today on the economy, and thus on employment, on the work place and, not least, on education.

The impact on employment is highly differentiated. While it is true that the introduction of technological innovations into firms and the tertiary sector does abolish some jobs, it is equally true that it also creates new professional opportunities. What often makes the issue dramatic is the fact that the two phenomena are out of phase. Destruction and creation actually differ in terms of 'time' (immediate destruction, gradual creation), 'place' (destruction in one place, possible creation in another), 'intensity' ('concentrated' destruction of jobs, 'diffuse' creation of jobs in small structures), 'quality' (destruction of jobs of 'medium' value, creation of jobs of 'high' or 'low' value). Employment is hit by a kind of 'roundabout' effect, in which the birth and death of jobs alternate, accompanied by a series of changes in the actual content of many jobs.

One of the roles played by education will thus be to prepare and train for innovation, at the same time providing the tools required to master more than one set of basic knowledge, as well as several new disciplines in the course of one's working life.

The more general discussion of the role of education vis-à-vis technology is still completely open, whatever the educational level referred to. One basic consideration which applies to all levels is that referring to the adaptation of educational tracks as a function of

new technologies. The main problem facing this adaptation is how to guarantee the difficult equilibrium between general skills and specific skills, and thus how to resolve the contradiction between demand for highly specialised, profession-linked education and the need to maintain interdisciplinary links, also at the institutional level.

The experiments carried out in more recent years have followed three main guidelines as far as the "internal" dynamics of the system is concerned. The first of these, in order to impart professional skills, has followed the criterion of giving large undifferentiated groups a set of basic "technical" know-how which is shared by all and can be used in a wide range of different contexts. The second guideline, still at the embryonic stage, places the emphasis on developing the capacity of the individual to adapt to different working contexts in conditions which cannot be determined a priori. It is thus the individual who, at least partially and significantly, has to identify the new opportunities and the most suitable educational tracks leading to the additional knowledge he or she needs. The third guideline follows the hypothesis of the creation of a basic educational curriculum to which different modules are gradually added. The advantages of such an option are cumulative. The extra education is acquired at times and at rates which are no longer linked to particular age groups but related instead to the individual's capacity and his or her changing needs stemming from changes in the content of the working activity or in the activity itself.

In Italy these three guidelines do not follow a parallel development but undergo strong visible accelerations and decelerations according to the different educational and working environments.

Some basic data: the education sector in Italy

Together with the health sector, education is the sector with the highest public expenditure.
Public spending on education is 'justified' mainly by common fundamental aims: the creation and enhancement of human capital, the providing of income-independent opportunities and thus a related social mobility, the dissemination and consolidation of a basic knowhow for everyone, based essentially on linguistic knowledge. At the individual level, the profit expected from investment in knowledge acquisition becomes a subjective incentive and is paralleled by public investment in the sector.

The educational level of the Italian population has risen constantly over the past thirty years. Considering the number of enrolments in the different types and levels of school, taking 1960 as the baseline of 100, in 1970 we find the figure of 110 for elementary school, 153.3 for the lower secondary school and 315.4 for the upper secondary school. For the latest year for which data are comparable (1985) the following figures apply: 90.1 for elementary school, 197.8 for the lower secondary school, 331.5 for the upper secondary school. Also in this country, therefore, a decrease has occurred in the number of enrolments in primary school, accompanied by an increase in the number continuing after completing their compulsory education. Several indicators concerning higher education and referring to university entry are shown in table 1.

The university: undergraduates and graduates

The university warrants separate treatment. In 1978, there were 981,000 undergraduates enrolled in 288 faculties, in the 44 existing universities, for a total of 21,000 lecturers and professors. In the same year there were 76,000 graduates (33,000 of whom women). These were the last years in which the number of enrolments and the number of graduates increased at the same rate. After this there began a downward trend which was reversed only in 1986, the year in which there were the same number of graduates (just under 76,000) as in 1977, although this time there were 1,113,000 undergraduates, compared with the previous figure of 980,000. What emerges here is the serious problem of the extremely high university undergraduate "mortality" rate, a problem still awaiting a solution. It is beyond our present scope to go into the peculiar origins and development of this problem, although it must be taken into serious account.

Analysis of the data at a more disaggregated level reveals the different trends in university enrolments and graduates over the years.

The 1988-89 data reveal an undergraduate corpus with an increasing tendency to abandon the natural science and engineering subjects (from 16.2% in 1951-52 there is a gradual and persistent decrease to 11.9% in 1988-89). This is paralleled by a growing overcrowding of the economic, juridical and literary faculties. Conversely, in 1988-89 the breakdown for graduates was as follows: 13.6% in the sciences, 15.1% in medicine, 13.0% in engineering, 3.4% in agrarian science, 12.1% in economics, 13.5% in law and 19.9% in literary studies.
The overall evolution of students and graduates over thirty years is presented in table 2.A deeper insight and analysis of Italian university and its problems can be found in chapter 1.

The costs

Costs have risen very rapidly in the industrialized countries. The figures for Italy are not very high and above all display a very slow growth rate. The 105 dollars equivalent spent per capita in 1965 rose to 131 in 1971 and to 166 in 1977.

A more detailed breakdown of expenditure on education in this country shows a constant rise in costs expressed in both current and constant lire (ignoring obvious and understandable halts, for instance, at the end of World War II) although we note that State expenditure underwent a sharp reversal of tendency in the 'seventies. The relative percentage expenditure on education in the early 'eighties in fact is in fact the same as in the early 'fifties. A similar decrease is found in the average expenditure per inhabitant which, at constant prices, had increased rapidly until the beginning of the 'seventies, after which it slackened considerably (from 42,000 lire in 1951, to 113,000 in 1961, to 265,000 in 1971, 300,000 in 1976 and 347,000 in 1981). The previously noted worldwide tendency towards a drop off in and containment of educational expenditure was confirmed also for Italy.

CHAPTER I

CHANGING HIGHER EDUCATION IN ITALY: OPPORTUNITIES AND CONTRADICTIONS

It is currently maintained that the national systems of higher education in Europe have been characterized by their answers to the social demand of education affecting all of them beginning in the late '60s.
Higher education in Italy is now confronted with a number of problems deriving from the weak answer (often the non-answer) given to the collective request for education. As a consequence, old problems such as the regulation of admission to the university have merged with more recent ones, e.g. the coexistence of teaching and research activities in the same structure. To put it another way, problems of the relationship between the higher education system and society coexist with problems inside the higher education system itself.
On the one hand, Italy still lacks any system of degree differentiation inside the public higher education system. The ongoing debate regarding the introduction of both short cycles and professionalizing masters' programs has not yet clarified the role of public and private sectors of training, which has a number of implications and consequences for the labour market.
On the other hand, the poor level of productivity of the public system of higher education has been attributed to its obsolete and centralized structure. A process of decentralization through higher degrees of autonomy has recently given rise to a wide ranging debate over the relation between public universities and private economic interests. This brought to the forefront line the role of scientific research inside the public system of higher education, and the combination of research activities and teaching duties for members of academia.

Productivity of the higher education system and the labour market

The productivity of the higher education system in Italy has been traditionally low since the enrollment boom which started in the early '60s and was facilitated by the "open door" policy. This policy allowed admission to the university without entrance examinations for any students holding an upper secondary degree of any kind: from the "liceo" to technical or vocational diplomas or educational certificates.

> It is worth bearing in mind that the Italian system of higher education has a secondary level subdivided into four tracks: (I) classical and scientific studies and teacher training; (II) technical education; (III) vocational education;

(IV) artistic education.
The connotations of class are clearly noticeable in a comparative analysis of the different types of secondary schools. The middle class is traditionally inclined towards the licei, especially the "liceo classico"; according to the information available, the lower-middle and working classes tend toward the technical and teacher-training institutes. Children of businessmen, professionals, and executives account for approximately 34% of the students in technical schools, but more than 40% in the licei scientifici and 70% in the licei classici. From all of these tracks pupils can go to university (any field) after completing five years of secondary studies and passing a final exam leading to a formal qualification (diploma). At the tertiary-level, on the contrary, there are no differentiations, either in terms of tracks (inside and outside the university) or in terms of level of exit. There is (with very few exceptions) just one type of course leading (after 4,5 or 6 years) to one kind of degree (laurea).

As a result, the university enrollments have increased dramatically accompanied by a visible decline in the productivity level. A series of dysfunctional phenomena found a more favorable ground to develop:
a) The number of drop-outs increased as did the percentage of "fuori corso" (students officially behind their scheduled curriculum). Since 1969, the year in which the open door policy was introduced, the average drop-outs rate has reached 30% of the students enrolled in the first two years, and it seems to have flattened out at this level.
b) The vast majority of those students who eventually get their degree are behind the normal schedule: only 32.2% graduate on time (with substantial differences between fields like Medicine: 61.6% and Political Science: 19.7%).
c) Although the productivity of the higher education system has been traditionally low; the fast growth of enrollments in the last two decades has made this aspect even more apparent since the total number of degree-holders per years has remained basically stable (between 70,000 to 78,000), while students enrollments jumped from 680,000 in 1970-'71 to 1,000,000 in 1987-'88.
d) The new wave of enrollments distributed the students along different disciplinary tracks in random fashion because of the lack of orientation or counseling service prior to university entrance. Some tracks seem to appeal because of the professional fields they are related to (e.g. Medicine or Law); some are chosen because they are considered easier and shorter than others (social Sciences and Humanities in general). Over the years the total annual enrollments has flattened out although the number of women students has steadily increased (particularly in the Southern regions). Lack of orientation and counseling explains partly why about 25% of students changes course (neglecting first year drop outs).

For years the impact of low productivity of the higher education system on the labor market has not been so negative as might be expected.
This was because the Italian economy did not require a large labour force with a high level of education. On the contrary, the demand for degree-holders did not increase simultaneously with the slow and progressive growth of the university product, and the number of unemployed graduates grew accordingly.

In recent years (late seventies and the eighties) a decline in the number of university degree-holders among the unemployed (less than 3% of the total, which accounted for about 11% of the labour force in 1988) is the result of a number of factors.

First of all, the growth of temporary jobs at low levels of qualification speaks for increased flexibility of supply. In modern economies, degree-holders have accepted lower qualified jobs available on the market in Italy and in other industrialized countries. Parallel to this phenomenon of labour force over-education/underemployment, the gap between developed and under-developed areas has widened. In particular, professional opportunities have become increasingly diversified for the university graduates both in terms of the quantity and the quality of jobs available. Recent reports indicate 2.5% of university degree-holders among the unemployed in the North of the country, and 10% in the South, while the percentage of temporary jobs is less than 15% in the North, and over 27% in the South.

On the other hand, in terms of periods of unemployment after the acquisition of a degree and before acquiring a stable occupation, a clear difference emerges between some sectors like Engineering, Statistics, and Natural Sciences, where the average waiting time is about 12 months, and others like the Social Sciences and the Humanities, where it is more than double.

Even if the flexibility of supply helped to ease the tension in the labour market, the demand for graduates did not show any substantial change regarding the traditional resistance to absorbing university graduates in large numbers, in both industrial and in agricultural sectors. This has been a rather peculiar aspect of the Italian economy throughout the years, and even many service sectors are now late in modernizing and continue not to hire labour forces with higher levels of education. Only very recently has the need for a substantial number of engineers and other technicians become visible. On the other hand, the introduction of higher technology has not been a labour intensive process as it has been elsewhere, and in Italy applied research (R&D sectors) has historically been kept marginal.

In this framework of extensive social demand for higher education and little increase in occupational opportunities, the higher education system has worked, and is still working, as an informal filter. This filter is created by differences among the high school tracks, all of which provide access to the university but provide students with uneven cultural backgrounds. The lack of orientation and counseling services reinforces the filtering effect. Thus the rate of drop-outs, and of students behind schedule, is constantly increasing. Every year only about 75,000 students get their degree ("laurea") out of the 250,000 enrolled as

freshmen. Such a low level of productivity has been *de facto* functional to the needs of the economy and to the stability of the demand on the market. However, now the changing labour organization patterns, the modernization of several economic sectors and the growing competition at the European level with greater economic integration within the EEC, have combined to create a quest for a new kind of professional figure with different levels of post-secondary training. As a consequence, the system of higher education in Italy has had to struggle to keep up with the rest of the European Community. In more specific terms, a larger number of graduates are needed with different degrees of training and the university has to produce both more graduates and graduates with different levels of knowledge. This last need for a differentiation among tracks and levels is especially keen if one considers that the Italian university has traditionally operated with just one degree level, and only very recently has a reform been passed introducing short-cycles and a third degree level (doctorate).

To the traditional unified level leading to the "laurea" the law (n. 382, passed in 1980) has added a higher level, the "research doctorate", which is somewhat reminiscent of the Ph.D. in American universities, and which offers a limited number of places to students wishing to take up an academic career in the form of seminars and independent research, very often carried out by a coordinated group of universities.
It is worth recalling that a new kind of "school for special purposes" was created, in the same spirit, in 1982. Their task is to train middle level professional figures, such as nurses, who previously required only secondary level education for their job. These two-year courses were introduced by the government to cope with the proliferation of private schools for any sort of "new professions", and were actually a way of introducing the possibility of short-cycle professionalized instruction at the university level.

The university reform: autonomy and curricula

The need to make the higher education system more adequate to the changing structure of the professions has been more recently represented by the political forces which supported the creation of the new Ministry of Universities and Scientific Research, which has been hailed also as a way to unify all programs of scientific research supported by the public authorities, and to maximize the efficiency and productivity of the country in several fields where international competition is tougher and more challenging. Among its supporters are those who believe the university should be more closely related to the economy and to society in general, and, at the same time, those who believe that teaching activities can benefit from close contact with research. Among its detractors are those who fear that the appeal of research activities (not simply its financial attractiveness) will lead to university professors neglecting their teaching duties. Others suspect that the separation between secondary and tertiary levels of education will also damage the former (especially with regard to teacher training), and that an excessive openness toward the economy will increase university involvement in applied research at the expense

BEST COPY AVAILABLE

of pure academic research.

Although expressly laid down in the Italian constitution, the independence and the right of self-government for every single university is not yet enough widespread. All details of organization are imposed uniformly by the central authority, not only by means of laws and regulations but also via circulars and replies to requests through which the Ministry makes known its own interpretation of the laws in force.

Recent debate on this topic has seen supporters of the autonomy of the university system vis-à-vis the patronage (and control) of the Ministry of Education opposed to those more inclined toward the autonomy of the individual university. The former position aims at reducing differences (and avoiding further distinctions) among universities which are already non-uniform for many reasons, not the least of which are historically related. The latter is more concerned with relating the university to the real world. One position is supported by those political forces which are more inclined to believe that public services should and could be improved, while remaining public and providing ad hoc services in order to reduce differences among the representatives of demand. The other position believes in competition and the free market, in order to improve services (including higher education).

The reform of university curricula again represents an area in which two different positions confront each other in an overall struggle between conservative and progressive forces.

The conservative position is represented by the attitude taken by all commissions for curricula reform created by the former Minister of Education, and made by the deans of different "Faculties" (Departments). The general approach to reform aimed modernizing university studies has been characterized by an increase in the length of studies (almost all courses being extended from four to five years), and by an elimination of subjects not strictly belonging to the specific field in question, this has entailed cutting the links between similar or related field, but not a move toward a specialization in professional terms; the attitude of the vast majority of the academic world has remained hostile to a professionalizing university.

The progressive position is represented by those supporting a growing flexibility of the curricula, basically through (i) the introduction of short-cycles and in general through a differentiation of possible university tracks, allowing, among other things, the participation of adults through projects of recurrent education, and (ii) the right of individual universities to emphasize a specific field of studies and to give it a specific structure.

At a political level short cycles are basically opposed on the grounds that they will become a second-rate kind of studies, penalizing those who follow them. Inside the university the same position is expressed by the teaching staff who fears they will have to go and teach in second-class institutions. All these positions pay little attention to the situation of the university in foreign countries, and to the needs of professionals, which are apparent from a glance at the labour market.

Under these circumstances, the real alternative (and the growing debate) is between those who want to keep the short cycles inside the university (to reinforce the possibility of students to pursuing their studies after their first degree) and those who prefer to let the short cycles develop outside the university in order to be closer to the needs of the economy and - at the same time - to protect the teaching and the research quality of the university from the pressure of the labour market.
A similar alternative affects the growing need for professional courses at post-graduate (laurea) level.
The accelerated development of professional courses at university level (mainly involving people holding a traditional degree ("laurea"), and therefore denoted as "masters courses") affects an increasing number of professional figures.
Still, the large majority of these initiatives are related to managerial training.
The origins of these management training courses go back to the '50s, and provide an example of the remedial role played by private initiative in a situation where the public system of higher education did not cater for the schools of Business Administration. Only recently (basically in the '80s) did the Schools of Business Administration begin to spread, as the economy was restructured and modernized.
Since these courses are not recognized by the State, and consequently do not lead to legally recognized degrees, only a few universities have a special section for business administration studies. These are usually Departments of Engineering or Economics in private universities.
The vast majority of these courses are instead offered by private ad hoc institutes, which have risen rapidly in various quarters.
The need to establish common standards of quality in order to bring the situation under control is now felt to be crucial. In fact, the usefulness of a more flexible and comprehensive system of higher education is represented by the proliferation of professional courses of all kinds which, following fashionable trends, are self-defined as "master courses".
On the other hand, the public university system refuses to soften its traditional resistance to applied knowledge. This is more the result of opposition from academic circles than from government, which in fact subsidizes Master in Business Administration programs by means of special aid for the development of the southern Italian regions.
The general picture which emerges is characterized by a dual system that will be progressively reinforced at this level.

A similar dilemma between public and private sectors affects the development of research activities vis-à-vis the system of higher education. In this country, basic research has traditionally been kept inside and applied research outside the university. The latter has been carried out by research institutes and centers supported by public money (CNR, ENEA, INFN and others). The main private and public industrial corporations (FIAT, Olivetti, IRI, ENI) have

slightly increased their contributions to research activities in recent years, also in the wake of substantial government incentives.
The problem has had an important impact at individual level, affecting, as it has in other countries, the role and activities of academics.

In recent years, there has been growing number of research opportunities for university professors at various levels (although with different impacts according to the specific field). Many of these opportunities now come from outside the university milieu as the need for expertise and knowledge application grows in a number of economic and cultural domains.

The result has been a decline in teaching quality and growing student protest. In this respect problems are similar in Italy to those in other countries. If anything, they are reinforced by the law which formally prevents young members of the professorate (the researches) from teaching on a regular basis.

The combination of teaching and research activities also has geographical implications. On the one hand, a growing demand for individual expertise in different fields of knowledge has developed in the major cities and retains professors and researchers where the "market" is more rewarding. Thus a growing number of university professors spend a large amount of their time away from their universities. On the other hand, the social and economic demand on the universities as a source of research and consultancy expertise is visible only in the economic core of the country (basically in the same places where the demand for individual skills rises). As a result, some specific departments in large universities are very efficient and of very high quality (Engineering in Milan and Turin, Physic in Rome), while very few such cases can be found in universities located in other parts of the country. From this point of view, it is worth noting that the university has not contributed substantially to the development of the poorer areas of the country, except by awarding a number of degrees, not always of the highest quality. The last question raises the issue of the alternative between a type of reform which leaves the individual university free to go to the market and sell its expertise in competition with other institutions, thus forcing it to improve its quality, and one which, on the other hand, aims to produce a system of higher education which is both public and open to the external world, and which tries to combine the rules of the market with those of public service.

A good number of elements characterizing the Italian situation makes this option more useful and (in theory) more feasible than the first one. But a lot has to be verified in terms of the political will of the major political forces and of the entrepreneurial attitude of the university milieu in order to run a single university and system as a whole with a managerial approach. The mounting influence of European integration is exerting increasing pressure on the economy and the business milieu.

The same cannot be said for the university milieu, where corporative privileges strongly resist any sort of real change and which is not flexible enough to reorganize itself according to the

new rules of post-industrial society and its need for a general upgrading of the levels of education. The cultural backwardness of both bureaucracy and academia leads to a clash between concepts like "mass higher education" and "élite higher education", and stands in the way of any real modernization of the system. Thus, the process of keeping up with other leading countries, basically the European partners in the EEC, will be longer and more complicated than most people expect, and will depend very much on what kind of coalition will be applied to (socially and politically) supporting the policy of European integration.

The same kind of political scenario will also influence the pace of the development of a private (and semi-private) sector parallel with the existing public one at the post-graduate level of higher education.

The need for a more flexible system of higher education may very well lead to a dual system represented by a public sector (the university) answering social needs of equity and social opportunities, and by a private (and/or semi-public) one which is more market oriented. For the time being, this solution seems the only feasible way to modernize the system of higher education in Italy.

CHAPTER II

CONTINUING PROFESSIONAL EDUCATION AND HIGHER CONTINUING PROFESSIONAL EDUCATION: LEGISLATIVE AND INSTITUTIONAL FRAMEWORK

Introduction

In order to define the institutional and legislative framework in which continuing higher professional education is located and develops it would appear necessary from the outset to define above all the field of continuing professional education in general. The latter term subsumes all the activities aimed at ensuring the cultural and vocational enhancement of workers, that is, the enhanced qualification or requalification of someone who already carries on a working activity and thus already possesses specific applicational know-how in one of several sectors of activity.

This definition would however be incomplete if, in addition to a breakdown by strategic objectives (e.g. specialization, reconversion) an equally important distinction was not made in the vertical sense, i.e. in that of the different level of education provided. The adjective "higher" is in fact used to refer to everything involving subjects who already hold a post-secondary school qualification and are in any case already employed with management functions and which is aimed at enhancing the training already received for the purposes of another specific and further defined working activity.

The second point refers to the method of analysis. In the following pages it will be attempted to provide the essential data required to define a legislative situation as completely as possible so as to obtain, on the one hand, a picture of the institutional responsibilities involved and, on the other, an illustration of the most frequent and significant aspects of the Italian situation.

Constitutional aspects

The normative foundations of the system we are examining are essentially those laid down in the Italian Constitution. The latter refers to professional education in general, and to continuing education in particular in art. 35 (the first article in Section III on "Economic relations"). Here, in paragraph two it is stated that the Republic must "ensure the training and professional enhancement of workers". Already from these words the interest in continuing professional education, as defined by us, is quite evident and undeniable. The term used to define the users of the service is not simple "citizens" but "workers", in other words, employees that must have their professional skills "enhanced". In other words, it is necessary to guarantee the enhancement of the theoretical and applied knowledge which the labour force needs to carry out its tasks at all levels.

However, this is not all. By including "craft and vocational training" in the list set out in art. 117 which provides for the transfer of legislative responsibilities by sector to the Regions being set up at the time, the constituent assembly's intention was to bring planning in this sector, as well as the consequent administrative management, closer to the varying conditions in the different parts of the country, considering this to be the best solution for ensuring the complete and consistent development of the system. The State, which of course retains the task of identifying the primary objectives to be pursued by the training activity, of coordinating local action and of harmonizing them with general development policy, would not be able to act with the same legislative and administrative effectiveness as it would be obliged to "homogenize" the different requests received from the various areas. Conversely, by splitting up the same responsibilities among the various regional councils, it is possible to achieve a greater, more flexible and more "dedicated" capacity for action which is quite essential to the educational activity.

Assignment of competence to the regions

The overall foundations of the institutional model in the educational sector are set out in Act 616/1977, which was approved for the specific purpose of laying down the administrative responsibilities of the Regions in the sectors transferred to them.

The above-mentioned Act fully covers the various different types of education, making specific reference in art. 35 to "services and activities aimed (...) towards educational (...) enhancement, retraining, for any professional activity and any purpose, including continuing, permanent, recurrent education (...)". This specific reference is not just a matter of style but also provides an exact measure of the interpretation to be given to the concise constitutional provision, clearing away any interpretative uncertainties that may have arisen in the 30 years elapsing between the passing of the two laws which tended to consider that only the initial "work"-oriented education should be devolved to the Regions. However, it should be noted that also in this case continuing professional education is accompanied also by other types of (work oriented) education. This resulted in that legislative and thus administrative coordination which, as we have already seen, in many respects links both systems to one and the same institutional pattern. The only omission made by the legislator concerns courses designed to lead to the award of a diploma or qualification at any level, i.e. post-secondary school, university or post-graduate.

The resulting picture suggests a number of considerations: the Region becomes the main agent in professional education activities of all kinds, whether initial or continuing, basic or higher. The exclusion of any possibility of awarding qualifications thus becomes indicative of the fact that professional education is considered as an activity which is legislatively quite distinct from that of public education. (1)

In its innate and obvious function of link between the school milieu and that of the labour market, professional education is thus seen to be clearly biased in favour of the latter (this is confirmed at the legislative level in the enabling law 845/78) and consequently

generally perceived above all as labour policy tool. It should be noted that the term 'labour policy' rather than that of 'employment' is used. The difference is of considerable importance as it means that the educational approaches adopted need not be a faithful tool for responding to the growing professional and vocational needs of the labour market, or at least not to them alone. Such approaches must complement and help promote industrial policy, being applied if necessary also to those already employed in order to enhance their theoretical and practical knowledge and thus ultimately raise production levels.

The award of formal qualifications, perceived as a monopoly held by the schools and universities, is thus left out. This distinction is perhaps too drastic and was in any case widely challenged immediately after the promulgation of Act 616.

To the above-mentioned functions of "active" administration assigned to the Regions must be added the extremely important control function of supervising the professional education activities performed by other bodies. In actual fact, this function may be summed up as being a mere "acknowledgement" (2) of what already exists in the sector rather than an actual capacity for a priori or a posteriori control. This ultimately enables the Regions to map out various initiatives in the educational sector in order to guide them in the general direction of overall social and economic development.

One last point: unlike what happens in many other sectors, Act 616 does not go into any detailed definition of the respective responsibilities of the lesser local authorities, leaving any such task to the individual regional legislative bodies.

This situation will ultimately lead to a differentiated management of the educational system at the various regional levels, which cannot be regarded as wholly positive.

Conception of professional education

Conception and role of professional education

While it is true that the administrative breakdown of functions among local authorities has not been defined by the national legislator for the sector we are examining here, he has been careful to provide detailed legislation in this area by means of the enabling law 845 of 1978, which was approved only one year after the promulgation of Act 616.

The latter law is of fundamental importance and, whenever necessary, will provide individual regional legislators with the information they need to take more certain and better defined action within the scope set out in the central legislation by establishing a centrally coordinated but peripherally flexible legislative and administrative apparatus.

This law, which is far more comprehensive and detailed than any of the previous legislation, on which it is based, has in some cases only been partially implemented and is now under review by the various parliamentary organs. However, it has undoubtedly opened up the way to setting up a true system of responsibilities among the State and the local authorities, and public and private practitioners in the

professional education field as a whole, including therefore also continuing higher professional education, for which provision is explicitly made in art. 8 of the same law.

Paragraph one of art. 1 makes almost verbatim reference to the constitutional provisions, merely replacing the term "cura" (looks after) with "promotes".

Paragraph two of the same article explicitly describes the role of professional education as a "tool for active labour policy", a role which, as we have seen, was only hinted at in the interpretation of art. 35 of Act 616. This role must be played with the confines of "economic planning" and, while aimed at "fostering employment", must above all ensure "production and the development of labour organization in harmony with scientific and technological progress". Not only have the indications provided by the Act been accepted, they have actually been repeated loud and clear: professional education must be implemented to enhance and update workers' professional skills at all levels in view of the continuous changes occurring in scientific and technological research and thus in production and the market place.

The law subsequently states that professional education is a "service in the public interest". In other words, it is per se a service of public importance even though it does not come under the fundamental and unique functions of the State. It warrants the attention of the State as well as control by the latter in the terms stated above because of the fundamental importance of achieving a non monopolistic public management of this sector which, in the forms that we shall now examine, would be "extended" and represent a compromise between public and private. It is no coincidence that the final paragraph of art. 2 itself states that "the exercising of professional education activities" of all kinds and at all levels, whether the beneficiaries are employees or self-employed, must be "free". Any subordination to discretionary public measures as regards the actual presence of private enterprise would therefore be illegitimate. Public control would be exercised rather over how the latter operated in order to acknowledge and define the activities performed by private enterprise as a "public service" (3). Only those wishing to perform such activities would voluntarily submit to such control.

State competence

Let us now define the respective responsibilities of the State and the Regions and analyze the resulting system, that is, the types of management envisaged in the law itself.
We shall begin with the responsibilities retained at the central level, which are spread over the Ministry of Labour, the Central Employment Committee and the Institute for the Development and Education of Workers (I.S.F.O.L.).

As regards the Ministry mention must immediately be made of the responsibility (provided for in art. 18, section a) for regulating "the discipline concerning the ordering of duties and professional functions into homogeneous groups for the purposes of contractual labour relations". The resulting situation is quite similar to that of our nearest European neighbours, in which it is always the central State, or one of its agencies, which defines the arrangement of professions

into sectors of activity and levels for either didactic or qualification purposes. Basically, however, these powers have the sole function of rendering homogeneous the tracks leading to equivalent professional profiles without detracting from the bargaining powers of the social partners.

The remaining ministerial responsibilities may be divided into four groups.

1. First come the responsibilities relating to guiding and control functions, to be considered as assigned to the government collectively and with regard to which the Ministry of Labour must maintain "liaison with the Regions". This liaison must be implemented with regard to both information flow and activities of "study, research and experimentation", both of which are necessary for the purposes of annual planning of guidelines and coordination in this sector. This specific planning is incorporated in the more general economic planning at the national level.

One further classifiable function in this same sector apparently involves the checking of the "suitability of the educational structures and equipment" with a view to achieving a single definition of a minimum standard for them at the central level.

2. The second group of ministerial responsibilities regards relations with the international and community agencies. The Ministry of Labour, in collaboration with the Ministry of Foreign Affairs, handles relations with the international organizations concerned with the training and professional education of Italian workers abroad. Responsibilities are shared between the two ministries in such a way that the former is concerned with the institution and funding of the activities and the latter with the management and supervision of their implementation.

The Ministry of Labour alone is concerned with delivering to the European Social Fund the requests for action approved at the regional level (see section 4.6 for further details) and "the arrangement and funding of programmes for technical assistance and cooperation with the developing countries".

3. The third group of responsibilities pertaining to the Ministry concern technical assistance and the funding of educational activities found to be necessary as the result of specific territorial employment crises or for industrial reconversion purposes.

Last comes the Ministry's responsibilities concerning the organization and funding, in collaboration with the Regions and on the latter's initiative, of the teacher trainer refresher programmes.

In carrying out these functions the Ministry draws upon the technical and scientific collaboration of the Institute for the Development and Education of Workers (I.S.F.O.L.) on the board of directors of which sit representatives of the Ministry and of the Regions, side by side with those of the Trade Unions and of the employers' associations.

Also I.S.F.O.L. is required, together with the Regions, to forward to the Ministry by 30th March each year a report on current and estimated progress in professional education activities. The Ministry then forwards the document to the Central Employment Committee, a body set up to provide general consultancy and proposals to the Ministry which, in certain cases, issues compulsory recommendations. The Ministry itself must attach the above documents to the tables of the annual budget, together with a report on the present situation and

future prospects of professional education, on labour market trends (with special reference to young people and women), as well as on current trends in this sector at the international and EC levels.

Responsibilities of the regions and role of the social partners

Attention will now be focussed on the responsibilities of the Regions, the main agents involved in professional education activities.

Analysis of law 845/78 (in particular arts. 3 and 4, respectively entitled "Powers and Functions of the Regions" and "Fields of Action") a wide range of regional powers are identified concerning different aspects involving the professional education sector in general and thus also higher continuing professional education which, as we have already seen, has not yet changed appreciably with respect to the overall institutional framework. In the first instance, the law comes to grips with the problem of the didactic nature of the educational process and thus of its relations with the milieu of the school and compulsory education. In relations with this sector reference is made (section a of art. 3) to a principle of "consistency", i.e. of non contradictoriness or non competition. In other words, it is required that the educational tracks do not overlap with or encroach upon the school syllabuses, but rather extend and complement them. The relation with the school system is complementary in nature and neither of the systems loses its autonomy by being forced to adapt unilaterally to the other. It is thus assumed that coordination is being constantly exerted by the school authorities, particularly as far as vocational guidance is concerned. Again with reference to the specific nature of training didactics it seems possible to link in the regional task of planning such activities using criteria of conciseness and essentiality of the courses and the syllabuses, also by means of a modular management.

Wherever possible and suitable, class room work should alternate with work of a more practical nature. Allowance should also be made in the syllabuses for the polyvalency, comprehensiveness and continuity of education, taking into account the educational level reached by the various groups of users.

Another set of provisions deals with the second aspect (which we have seen to have been given priority by the Italian legislator) of the vocational education activity, i.e. that of being an active labour policy tool. Once again mention is made of consistency, this time of the activity under examination, within the broader context of general economic planning, on which the actual educational action must be based. This consistency, which is recommended at all levels, from national to local, is of particular significance at the regional level, where the planning of initiatives is the main instrument for taking action in the sector. For the purposes of effective and consistent planning, the contribution of public action will thus be of primary importance. However, this action must, as we have seen, coexist with or better be flanked by an intense effort by private enterprise, by a large number of different proposals which enrich and differentiate the supply side making it to some extent competitive.

The partners called upon to take correct planning action are thus identified as the social forces, the local authorities and the local

offices of the Ministry of Labour and the Education Ministry.

The local authorities and the social forces also have a role to play, in the way laid down in the regional legislation, in the activity of "social control" over the initiatives.

One of the methods of achieving this result is made explicit when it is necessary to perform "systematic surveys of trends in employment and educational needs, in cooperation with the State administration and the help of the social forces".

Another fundamental point is coordination of the action taken by the Regions in this sector with action at international and EEC level, the provisions of which are immediately binding also at this level.

Management of the system: the roles of the various agents

Our analysis of the responsibilities shared out between State and Regions has so far led us to define the overall pattern of legislative and administrative functions. Some thought must now be given to the way the system itself is managed (as laid down in arts. 5, 7 and 8).

The basic starting point is precisely the planning, which, as pointed out above, is the yardstick by which action in the sector may be measured.

Within the framework of general economic planning it is necessary to draw up a specific multi-year professional education plan and a yearly implementation plan. The latter should specify the actual short term action to be taken.

While respecting all the points which have been described so far, the law makes provision for two different types of action: that which is carried out "directly inside the public structures" and that which is performed contracted out to private enterprise.

As far as the former is concerned, the only limits imposed by the legislation under examination is that of the full utilization of the structural and functional capacity of the public structures involved.

Whenever required, the latter must be boosted to satisfy the demands of the educational activity undertaken. In other words, those public agencies wishing to manage professional education activities directly are prohibited from entering into conventions with other bodies.

Wherever possible, the organizational and bureaucratic apparatus of the offices themselves are modified in order to make them better suited to operate in this direction.

As far as private enterprise is concerned, the management of this "service" is regulated by means of a "convention". This is a rather unusual form for administrative activities, although it does allow for a wide range of possible relations between the two parties. The convention offers both the possibility of the Administration itself to monitor what is being offered and of the private operator to become the "actual" title holder of a public service.

Furthermore, it should be noted that the law lays down that the power to enter into conventions with private organizations shall only temporarily be available to the Regions until the reform of the local authorities has been implemented, which should be achieved in the near future.

Considerable stress has been laid on the identification of subjects with which conventions for carrying on professional education

activities may be stipulated. Such subjects may be the "emanation" of national organizations of employees or self-employed workers, of employers or of associations with educational and social aims, or of firms or consortia of firms, or of the cooperative movement.

The workers and employers associations must satisfy two requirements: the organization itself must be democratic in nature and it must have a national extension, that is have its structures spread over the entire national territory.

Without exception all these bodies must satisfy also the following criteria of eligibility:

1) to have professional education as their aim, that is, to be specific educational structures;
2) to be able to draw upon structures, organizational capacity and suitable equipment; this requirement presupposes a minimum qualitative level;
3) to be non profit-making
4) to exert social control over the activities.

In the case of "educational, refresher, retraining and reconversion courses" (i.e. precisely in the field of activities we are examining) the Regions can enter directly into conventions with firms or consortia of firms.

The enabling law 845/78 thus explicitly draws attention to the role of firms in professional education activities, which is in harmony with the situation in other parts of Europe (UK, France, West Germany). The firms may enter directly into conventions with the Region, in which case the firm is called upon to run the public "educational" service directly. To do so it is sufficient for them to have adequate structures and equipment, i.e. to have dedicated premises other than those in which the working activity is carried on that can be subjected if necessary to inspection by the Region. The educational initiatives may involve both employees and non employees.

The possibilities of the firm operating in this way are still somewhat hampered by red tape which considerably reduces the chances of success or at least the dynamism of the activity.

In the second place the firm may (art. 15) become the site of training periods in general or, more specifically, of practical training in particularly complex plant or production systems. Finally, the firm may also provide facilities to allow class room studies to be alternated with direct application in the workplace.

Funding mechanisms

Lastly, it is of interest to examine the ways in which the system is funded.

On the one hand the Regions draw upon the Common Fund provided for ordinary revenue of the Regions (set up under art. 8 of law no. 281 of 16.5.1970). While this solution may at first sight seem logical and acceptable, it must immediately be pointed out that this fund has not been increased as a result of the above provision so that regional funds has actually decreased. It has had to face up to expenditure in

this sector without the support of the abolished workers professional education fund (FAL).

On the other hand, the Regions may draw upon the European Social Fund (ESF). Eligibility to this fund is based on approval by the Region of specific individual projects that, if approved, are submitted, as we have seen, to the EEC by the Ministry of Labour itself. However, the European Social Fund covers only 50% of the total cost of the projects presented, so that sources in the requesting country must also necessarily make a contribution. To the end the law makes provision for a Rollover Fund with an initial endowment of 100 billion lire fed by the payment of 2/3 of the revenue increase obtained by raising the supplementary contribution for compulsory unemployment insurance by 0.30%. The Interministerial Economic Planning Committee (CIPE) annually fixes the ceiling for expenditure that can be authorized by the individual Regions. After ESF approval has been obtained, the Ministry of Labour, in collaboration with the Ministry of the Treasury, fixes the quota to be paid by the Rollover Fund, which is paid directly to the organizations concerned.

The cost of the educational activities required as a result of industrial reconversion is instead footed by the Mobility Fund of the Ministry of Labour.

Mention should also be made of the special fund set up for the funding of special projects in areas characterized by a large gap between labour demand and supply. The Regions can draw upon this fund directly. At a later stage these amounts will be charged to the fund for supplementary funding in the southern Italian areas as well as to the quota assigned to this item by the youth employment measures.

Finally, mention must be made of the decree law no. 408 of 1988, converted into law no. 492/88, which among other things provides for the transfer of the residual two-yearly funds of the above mentioned Rollover Fund set up as we have seen under law 845/78 as a fund for the innovation of the Regions' educational systems.

Continuing professional education of public employees and management staff

Continuing professional education for public employees warrants separate treatment. It is specifically mentioned in art. 14 of the enabling law on public employment (law no. 93 of 1983), which treats it as subject to local bargaining. This means that it can be negotiated locally between the trade union representatives and the management in the various departments into which the Public Administration has been subdivided for this purpose. In this specific case, on the job training undergoes a different treatment according to the outcome of the negotiations in the various forums. It should be noted that comparatively little importance is usually attributed to this issue by the various parties involved in the negotiations.

In most of the cases in which concrete results have been

achieved, this has been due to the particular concern of a specific representative or related to a specific problem raised inside the agency. Generally speaking continuing education activities for public employees is carried out in structures outside the Administration itself, included precisely among those described in the preceding section. It is rare for the same office to organize and manage internal retraining activities such as refresher seminars, informative courses on changes in laws and regulations related to the work of the office, or training in the use of technological and information science innovations.

One further possibility offered to public employees in general whatever their qualifications is the possibility of attending courses run by the Higher School of Public Administration, an offshoot of the Prime Minister's Office. Although its primary function is to organize courses/competitive examinations for the purpose of selecting public sector management staff, at its four centres of Bologna, Caserta, Reggio Calabria and Rome, it actually also often organizes a large number of specialist, refresher and proficiency courses in foreign languages, as well as seminars. These courses are usually designed for the management staff themselves but also lower-ranking employees are occasionally eligible to attend them. The teaching activities of the School are concentrated mainly on providing its users with ways and means of solving the concrete problems they face in their daily tasks precisely because of the long and consolidated experience they have normally acquired on the job.

Special educational activities:underdeveloped areas; technological innovation

Side by side with the system described herein there are a large number of specific actions based on laws pertaining to the sector, in particular in those cases in which the educational support could be considered a priority tool for solving economic growth problems by field of activity or geographical area.

One of the most significant laws of the type described is no. 64 of 1.3.1986 entitled "Organic discipline of the extraordinary intervention in the Mezzogiorno". This law provides for a nine-year period of action divided up into three year action planning periods. Among other things, it lays down that the "activities and initiatives (...) contributing to the renovation and modernization of the economic apparatus, (...) of an educational and administrative nature" are included within the scope of the extraordinary intervention and may thus be funded or encouraged "in implementation" of the three-year programme. The entire administrative apparatus is managed by the Prime Minister and, by delegation from him by the Minister for Extraordinary Intervention in the Mezzogiorno. In this they are assisted by the Department of the Mezzogiorno set up within the Presidency of the Council itself and by the Agency for the promotion of Development in the Mezzogiorno, which is involved in funds management and promotion activities. Among other things, provision is made for restructuring FORMEZ, previously linked to the Cassa per il Mezzogiorno, which has the aim of training and updating public and private practitioners. In other words, education and training are incorporated into a broader range of action of an economic nature, in which they are closely linked

in particular with innovative productive processes. Although their main task is to create new professional skills to remedy the vast and urgent problem of youth unemployment, they are also and even principally aimed at updating the knowledge of public and private workers and management staff so as to ensure overall long-term market development.

Continuing in the direction marked by the above-mentioned decree-law 408 of 1988, converted into law no. 492/88, the Ministry of Labour and Social Security issued a decree on 9.5.1989 defining the objectives of the process of innovation of the systems themselves. The innovation plans must be aimed above all at improving the quality of regional planning. In the second place, relations must be established with the educational system and, on the other, with the firms in view of "the evolving legislation on mixed education and labour contracts". Planning, on which all Regional educational activities are hinged must therefore progress still further towards becoming a link between the milieu of the education and the market place, in particular by increasing the contribution it makes to active labour policy. Lastly, emphasis is laid on the need to boost education efforts in the sectors of technological innovation. This trend, which is increasingly apparent at the legislative level, is having a powerful effect on the issues discussed here as increasing pressure will be brought to bear to retrain or update the existing work force in the company. This solution is much cheaper for the normative apparatus and involves an improvement in human resources management by the firm itself.

The amounts paid out under the innovation fund will furthermore be used precisely for retraining the educators themselves in view of the specific requirements outlined above.

Notes to chapter II

(1) This is confirmed by decision no. 89 of 30.5.1977 of the Constitutional Court. This means that the elements of an actual "right to professional studies" for those who have already fulfilled their compulsory education obligations (however defined) are thus not integrated. Conversely, professional education becomes part of another fundamental right, the "right to a job".

(2) This is the way Cocozza comments art. 55, in Bassanini and Barbera "I nuovi poteri delle Regioni e degli enti locali - Commentario al D.P.R. 616/77", pp. 268-269.

(3) To quote Mario Napoli in "Le nuove leggi civili commentate", 1978, p. 913 et seq.

(4) For further details see the essay by Mario Napoli "Art. 35, 2o comma" in "Commentario della Costituzione" ed. by G. Branca, Bologna, 1979.

CHAPTER III

HIGHER CONTINUING PROFESSIONAL EDUCATION: THE ROLE OF DIFFERENT ACTORS A QUANTITATIVE ANALYSIS

Strengths and weaknesses of the Italian institutional model

In Italy there is currently no specific normative framework to regulate the supply of continuing professional education and, more specifically, higher continuing education.

The Italian model, based as it is on the legislation deeply analyzed in chapter II of this Report, combines both initial professional education and continuing professional education into a single set of laws.

The resulting model is substantially different from the French version in which continuing professional education is practically separate from initial professional education and closely linked to productive training. The Italian model also differs from the German and British models, which rely heavily on the free market, although the forces acting inside this market are modulated by different regulations and legislative forms in these two countries.

The idea of the Italian legislator was to entrust to a flexible system in close contact with specific local requirements the government and management of professional education conceived of as a link between school education and the workplace. It was also intended to provide an opportunity for those already employed to update, increase, enhance or reconvert their knowledge and professional skills. This was the basis of the decision to assign to the Regions a high degree of autonomous management in this sector.

The legislative system on which the model is based presupposes that the professional education management and control activities will be incorporated in an efficient (regional and national) system of planning, monitoring and verification of the educational action. Furthermore, it presupposes that the Regions are capable of maintaining constant liaison with the other public agents operating in their own country, as well as with those operating at the national level.

Lastly, the fourth peculiar characteristic of the institutional model is the preference granted to the public structures with the a priori exclusion, often not implemented in practice, vis-à-vis managerial initiative to supply educational services.

The guiding principles of our model outlined above, as laid down by law 485/78, are thus seen to be on the one hand not to have been applied and, on the other, to be subject to debate and to proposed

review. In recent months several guidelines (most of which unaccepted) have been reproposed, namely:

1. greater differentiation of the role of professional training vis-à-vis general education;
2. higher degree of relatedness with the productive systems;
3. higher quality of the education offered;
4. definition of common methods for certifying the results;
5. common educational curricula for common qualifications.

Again according to the proposed innovations to the system, to this must be added the intention of the legislator to promote processes of competition among educational Agencies, Centres and other bodies. In particular, according to advance information received by the research team during an interview carried out at the Ministry of Labour very recently, a bill specifically aimed at continuing education is being drafted in such a way as to respond to an EEC recommendation to each member country to guarantee the subject right to continuing education.

The intention behind this draft bill is thus to establish also in Italy a legislative basis for the subjective right to continuing professional education. The guiding principles underlying the draft bill provide for a system of indirect incentives to encourage the inclusion of educational matters in collective bargaining. Since the intention is to extend the right to continuing education also to the unemployed and the non employed, regional planning will be orientated in the direction of encouraging the establishment and practice of the right to continuing education.

The promulgation of specific legislation governing continuing education should be followed in May '91 by an overall of the existing structure of Italian professional education, that is, a revision of the enabling law 845/78. In this revision the Regions will have a central role, which is in any case guaranteed by the Constitution. Nevertheless, the potential role of private enterprise inside the system will be reviewed and expanded. The draft bill is still at the discussion stage and the system currently appears in abstract to be all-inclusive. The situation regarding the roles and responsibilities of the various government branches in providing higher continuing professional education is by no means clear. On the one hand, the Ministry of Education should be involved in setting up short or very short post-diploma courses to round off the initial education offered by the State vocational training institutes. Also the Ministry of the University and Scientific and Technological Research should cooperate in setting up short courses running parallel to normal degree courses. as also the Ministry of Labour through the various Regional educational centres. During the above-mentioned interview it was stated that each of the above bodies seems to want to have the main, if not exclusive, role of managing higher continuing professional education.

To tell the truth if we use the European wording of "Institutes of Higher Education" none of the above structures may be excluded since they are all able to provide higher education. The regionally funded education system would therefore have at least as much right as the others to manage this supply. This is the stance adopted by the

Ministry of Labour which emphasizes that the problem is not so much who can and should control the offer of continuing professional education but rather involves the need to define standards and criteria for validating initiatives and centres, as well as standards and criteria for certifying the results of the education processes. While there is no doubt that this is the central issue, there does not appear to be any definite and agreed approach to the question of responsibility and to ways and means of solving this problem.

Despite the peculiarities and difficulties related to the model, it should be noted that the system seems to follow a path of its own which often diverges from the intentions of the designer of the model, who is about to review it.

Current situation regarding offer of higher continuing professional education: definition of the field of study

An effective example of the above-mentioned degree of divergence between the underlying principles and the actual development of the system is obtained by analyzing the actual structure of the supply of higher continuing professional education (i.e. subjects actually involved and initiatives undertaken).
In reality two comparatively unrelated components operate in the Italian system of professional education. It is a "public system" embracing all the initiatives and bodies acting on the basis of funds supplied from the regional budgets and included within the purview of law 845/78. Action is mainly directed towards initial basic education whenever, above and beyond the legislative prescriptions, there is found to be a shortage of higher education initiatives.

The "private" system operates in parallel with the above system. In the terminology normally adopted by experts in this field, the "private system" is taken to mean the total number of institutes operating outside the regional professional education flow of funds and therefore outside its regulatory purview. As is obvious, we are dealing with a heterogeneous group in which in fact the presence of public funding is neither sporadic nor negligible. Indeed we find in this group institutes operating with budgets fully funded by public money (European Social Fund, Rollover Fund, university funds and funds from other public institutions such as ministries).

The term "private system" is therefore merely conventional and as such will be adopted in this sense in this report. Conventionally both inter-company and in-house education are considered part of this subset of professional education. In the course of this present analysis we shall refer solely to inter-company education, i.e. education which is not carried inside the company. As no data or analyses are available on the latter we shall merely present a summary of the trends inferred from direct interviews carried out at some of the largest and/or most innovative firms operating in Italy.

Methodological aspects

The present section consists of an illustration of the structure of the supply of higher continuing professional education (number and nature of subjects involved, number and nature of educational initiatives). It is based on the processing of data permanently collected and updated by a national educational data bank, Sistema Informativo Dioikema (1). The data we use refer to higher continuing professional education programmes (2) in the years 89/90 for the "private system" and 88/89 for the "public system". The data collected are based on printed publications disseminated by the various institutes for the purpose of advertising their own educational system. Above all, has been dentified the minimum essential components that need to be known for each educational initiative offered in order to ascertain whether a service is worth purchasing (Tab. 3), irrespective of whether the course belongs to the public or the private system. On the basis of this simplified and standardized model, the documents describe the offer made by the various institutes, using abstracting techniques and rigorously reporting only the information supplied by the source.

A second methodological point to be made concerns the criteria for delimiting the scope of the investigation, namely higher continuing professional education. As far as continuing education is concerned, the term is applied both to adult training directly aimed at updating, enhancing and reconverting professional skills and to education directed towards the unemployed and non employed, provided it is supplementary to some form of initial professional education.

Higher continuing professional education has been defined as the subset of continuing professional education action directed towards persons holding a higher professional qualification and/or possessing professional experience which allow them to perform middle or top management tasks. This is the criterion used to select from among the data all the education initiatives directed towards existing holders of middle and top management posts, together with those directed towards unemployed or non employed holders of a higher study certificate who, in order to enhance their prospects on the labour market, have undertaken a process of requalification, specialization, higher or refresher studies.

In practice the field of studies includes all post-diploma professional education courses (for people without previous work experience), although it is specified how many of these require a degree as entrance requirement. It also includes all the "in service training" courses (for those already employed) and "at work/ in service training" (intended for both non employed, unemployed and employed persons) provided they are designed for middle and higher level.

Structure of supply

The supply of continuing education in Italy , within the limitation which have been just mentioned, consists of some 25,000 education initiatives, or 73% of the total supply of total professional education, initial and continuing.

The supply of higher continuing professional education (HCPE) involves some 12,254 separate interventions (Tab. 4) or 36% of the total supply and 49% of continuing education. However, the supply decreases substantially if all courses directed towards non employed persons are limited to degree holders and those with other diplomas are excluded. Postgraduate courses available to non employed persons in the public system of professional education total a mere 39, for a total of 26,016 hours involving 657 students. There is an equally small number of postgraduate courses available to non employed persons in the private system - 72 courses for a total of about 61,463 hours and 1954 students. Despite these overall values it is nevertheless interesting to note the considerable differences in the roles played by the two large supply side components: on the one hand, the "public system" which depends on the regional government apparatus and, on the other, the "private system" which operates essentially outside the financial and regulatory flows of the regional system.

In terms of number of educational initiatives, the main role played by the supply of continuing professional education falls to the "private sector" which offered 14,635 courses to the market during the reference year. The "public sector" contribution amounted to 10,301 courses, or 41% of the total. In terms of students and hours of course the part played by the "private system" is smaller and less significant than that of the public system owing to the greater weight of education for non employed provided by the "public system" (i.e. consisting of education pursuing long-term objectives), as well as because of the longer average duration of the educational action taken by the "public system".

This preliminary concise review of the data referring to the structure of the supply of H.C.P.E. in Italy allows several salient features to be identified.

In the first place, some form of specialization exists between the two large "public" and "private" systems. The former is focussed mainly on action directed towards the non employed (mainly young diploma holders seeking their first job or long-term non employed graduates) and to a lesser extent vis-à-vis the overall capacity offered by the system, funds, manages or contracts out the implementation of long-term educational initiatives (on average 256 hours) for those already with working experience. This system devotes less of its overall efforts to high level education : for a total of 3300 courses (Tab. 5, Gr. 1).

The second system, on the other hand, is specialized in action directed towards those who are already working in the form of short-term courses (53 hours on average). Compared with the public

system it focusses more attention on higher education: for a total of 8954 courses (Tab. 6, Gr. 2).

As will be shown in that part of the report dealing with educational activities designed and carried out for specific company purposes, the "private system" represents a stock of teaching experience and know-how about didactic methods for adults. In addition to the above-mentioned offer of standard educational initiatives, it also proposes consultancy as to how to implement the individual stages of the education process and "customized, turnkey products".

The "public system" has been almost completely excluded from this role.

It may thus be claimed that two comparatively unrelated systems operate on the H.C.P.E. market: a rigidly regulated "public" one and a "private" one, whose role, neglected in the regional legislation, is on the contrary significant and in rapid expansion. However, the absence of rules to encourage the correct functioning of the market by reducing its rigidity has a highly detrimental effect on the quality and effectiveness of the whole supply system.

H.C.P.E. producers

At this point it is necessary to analyze the characteristics of those who actually produce H.C.P.E. initiatives. In view of the important role and the high degree of heterogeneity of the "private system" this will be the main object of the present analysis. The 8954 courses related to the "private system" involve some 234 organizations of different nature and origin. Within this large group of organizations there coexist production situations with widely varying juridical bases and a wide range of promoting subjects. To all this must be added the large number of operational strategies followed. Some of the organizations base the development of their activities on the supply of educational services, others regard the supply of such services as supplementary to their main products and/or services (software houses, publishers, research centres, consultants'). Some organizations operate as profit-making concerns while others are non profit-making, others whose funding is totally private together with others in which it is totally public. If we examine in detail the characteristics of these organizations as far as private sector is concerned, we find that the 234 organizations involved have 264 educational centres (Tab. 7). As far as the juridical nature of these centres is concerned the majority are found to be commercial companies (S.r.l, S.p.A.), followed by local public authorities and non recognized associations (Tab. 8).

Within these 264 organizations we find 23 situations linked to university institutions, mainly associations or consortia, and in some cases actual university structures.

As far as the public system is concerned the 3,300 higher continuing professional education courses it offered during the reference period can be assigned to 442 organizations, corresponding to

897 educational centres. We thus find a fragmentation of the offer into a myriad of centres which are probably not specialized in higher education activities. The data referring to the juridical structure (available for 739 organizations) clearly reveal the absolute insignificance of entrepreneurial type activities (commercial companies account for about 2%). The supply centres consist mainly of local public agencies (26.1%) and associations (56.3%) operating by means of conventions with the Region or with agencies delegated by the latter. This time the overall pattern reflects a strict observance of the guidelines contained in enabling law 845/78 concerning the predominant use to be made of public structures.

With regard to the role of the University in the supply of H.C.P.E., some 23 instances of operations within the "private system" may be found and 11 in the "public system" (Tab. 9). The links between them are of a different nature. Indeed if we examine the educational centres operating in the private and public sectors as a whole vis-à-vis the promoting organizations some 26 centres of university origin are found (Tab. 10).

As far as the territorial distribution of the educational centres is concerned, maximum concentration for the private system is found in the north-east and north-west of the country, while the presence of agencies linked to the private system is very limited in the Mezzogiorno and the islands, which is in agreement with the data referring to the overall private supply situation. Centres related to the "public system" account for a far greater proportion in these areas.

Let us now examine a typical supply structure indicator, the course concentration ratio. If by concentration we mean the extent to which H.C.P.E. activity, measured in terms of courses and hours, is dominated by a small number of large education centres.

Concentration can, as we know, be defined in terms of two factors:

1. number of firms:
2. their relative size (3).

Analysis of the concentration ratios aims at ascertaining:

1. the level of competitiveness of the market and therefore to obtain some warning of any potential collusion or interdependence between producers;
2. even indirectly, the productive efficiency of the various centres and the degree to which economies of scale may be exploited;
3. the extent of barriers to entry of new firms in the sector.

From the data obtained from the data bank we find that in Italy the educational centres operating permanently as part of the "public system" ran 3,300 courses for a total of 1,750,941 hours. Courses run by centres operating in the "private system" totalled 8,954 for 566,642 hours.

In the public sector, starting with the largest centre, which alone ran 344 courses, or 10.4% of the total, we reach a share of 35.1% of the total number of courses run by the top ten organizations, finally reaching the figure of 61.4% of courses run by the first 50 organizations (Tab. 11). Despite some slight discrepancies, the concentration analysis expressed in terms of courses can also be expressed in hours. In the "private system" the average concentration is slightly higher than in the "public system": from the 12.7% of course produced by the first firm we go to 46.1% produced by the first ten organizations and to 79.6% produced by the first fifty. In line with what takes place at the national level, the higher concentration found in the "private system" is justified by the different user characteristics or, if we prefer, of the market to which the two systems considered refer.

While private organizations operate in a national or European size market and involve persons already employed, the organizations operating in the "public" sector mainly address a regional market.

Product characteristics

As we have seen the supply of higher education involves some 12,000 courses, 3,300 of which implemented within the regional system. However, this overall value conceals significant differences affecting the various variables involved, i.e. the territory and the economic sector of activity to which the educational action is addressed. As far as the territory is concerned, there is a higher overall supply of H.C.P.E. initiatives from the "private system" in the north-west area, while the opposite is true in the Mezzogiorno, most of the supply being offered by the "public system" (Gr. 3). Furthermore, differences are found in the supply if we examine the sector to which persons are assigned after training (Gr. 4) (4). In the agricultural, environmental and cultural assets sector the Mezzogiorno displays the higher supply and the "private system" is almost completely absent, while for the cottage industry sector the supply is concentrated in the central area. As expected, educational action addressed to the industrial sector is distinctly predominant in the north-west area, as is that of an intersectoral nature. For educational action addressed to the services sector supply is virtually the same throughout all the geographic areas, with a slight prevalence in the central area. However, the role of the systems changes: in the north the main agent is the "private system" and in the south the "public system".

This brings us to an analysis of the characteristics of the educational initiatives in which the examine the main didactic features:

organizational formulas;
methods;
types of certification;
main contents.

Unfortunately, the data made available by the sources with reference to the variables cited are fragmentary and limited to the "private system" alone.

One first basic characteristic of an educational initiative is its duration. In this connection the computation of the average higher education course duration reveals a considerable difference in behaviour between education addressed to the employed and that addressed to the unemployed. Likewise, wide differences are found between the "private system" and the "public system" with reference to the different types of beneficiaries (Tab. 12). In the first place, on the whole, it must be pointed out that action addressed to unemployed persons never lasts longer than four months (670 hours)on average and therefore consists of requalification action addressed to persons with poor professional qualifications (e.g. long-term unemployed) or else consists of specialist initiatives. Action addressed to employed persons is conversely of short duration, probably refresher training. The latter evidence seems to point to the fact that the longer term action is carried out in-house and that inter-company educational initiatives are used only for short refresher courses or as an introduction to other company contexts.

Further indications are obtained by standard deviation analysis (Tab. 13).

On average there is a high degree of variability in the solutions selected. However, it is apparent that educational action addressed to unemployed displays less scatter around a mean value, with the behaviour in the "public system" resembling that in the "private system". Educational initiatives addressed to those already employed show a higher scatter around a mean value. The latter phenomenon is much more evident in the "private sector".

Analysis of data referring to organizational methods provides us with further indications of the way time is used in learning processes: fulltime courses account for 88.8% of the total (Tab. 14, Gr. 5). It may thus be concluded that, as in the case of educational activities as a whole, the supply of higher education is rigidly anchored to relatively undifferentiated and inflexible organizational models.

With regard to the didactic methods, the data referring to higher professional education alone are no different from those referring to the entire professional education system: 80% of educational initiatives are carried out using traditional methods (classroom lessons and/or practical work) (Tab. 15).

In this connection it may be concluded that, as far as the teaching methods used, higher education is no better off than the supply as a whole. The methods used are relatively undiversified and seem to have a comparatively strong school bias.

This is somewhat alarming in view of the strong need for innovating educational methods which, as we shall see, is felt by the firms.

As far as certification is concerned, some data is available for both the "public system" and the "private system". In the case of the latter, out of 8954 proposed course initiatives only 18.2% of sources declared that a final certificate is issued (Tab. 16). In most cases it consists of a certificate of attendance (92.6%).

The situation within the "public system" is different as a result of the introduction of regulations governing the sector. For all action (with few exceptions) a final certificate is issued. The majority consist of a recognized qualification (47.1%), while an important role is played by certificates of attendance (30.1%) and specialization (20.0%). Considering only those already employed the certificates most frequently issued are of attendance and specialization (Tab. 17, Gr. 6).

With reference to the main subjects which have been dealt with in the initiatives of continuing professional training, the data allow an analysis of the frequency of various recurring subjects.
On the basis of a "controlled vocabulary" each educational initiative is given a series of descriptors summarizing their content.
The scanning of the frequency of the descriptors for every initiative of higher professional education, gives evidence to the fact that these very initiatives are largely based on the subjects related to the "information science" area (data base, data systems, programming techniques, DBMS, software system, mini-computers, software engineering).
Only at a further application is another frequency of managerial subjects found. This is a general one (management, firm-management, communication, firm organization).
On average, no more than 20 courses per year are dedicated to very specific subjects such as evaluating potentialities and time management as regards managerial subjects, or computer graphics, digital circuits, optics, robotics, optical fibers, logistics, electronic component and preservation systems as regards aeronautics.
In conclusion, the offer from outside the companies is mainly focused, for obvious reasons of cost, on general subjects, so that it is more of an opportunity for meeting and exchange of experience, than for skilled learning (this result is proved by the data on the average length of the courses).
The small number of educational, specialist-type initiatives outside the companies, is often formed by very high level courses only rarely organized by training centres. In general, these are: research institutes, university centres, consortia, software houses, associations of research institutes which, working mainly in fields different from the educational ones, have and spread specific know-how.However the poor didactic competences of these centres put seriously into question the actual effectiveness of higher professional education in terms of transferring the learning process inside the company.

Higher Professional Education within companies

Methodological Aspects

In order to obtain some information about the main questions tackled in this Report concerning education and training within companies, it has been necessary to combine different information sources;
We have considered three major ones:

i) the data collected by a survey on university industry cooperation activities on scientific research, carried out by the National Research Council;
ii) an *ad hoc* number of direct interviews with some innovative large and medium sized Italian companies;
iii) the results of a survey carried out for the University of Bologna on some medium sized companies in a specific region and economic sector.

We will briefly present the main issues emerging from the three sources.
We must preliminarily underline that the available sources allow us to focus on only some aspects of higher professional education within companies; besides it should be considered that the analyzed firms are those more involved in the innovation process, and therefore certainly not fully representative of the general situation of Italian industry.

University industry cooperation activities

The prerequisites for the establishment and spread of technological know-how have often been identified in the boosting of scientific supply, in the promotion and support of the innovative activity of firms.
In tracing out a general action policy, collaboration between universities and firms in the R&D field tends to be of primary importance. It is often elevated to the rank of a strategy and in some cases even uncritically considered an aim to be pursued in itself.
In view of the foregoing considerations and of the increased interest in this topic, the National Research Council of Italy has recently carried out a survey of the aspects, modes, contents, prospects and problems related to this type of collaboration. A questionnaire was devised in two versions which was sent respectively to a highly representative sample of the universe of innovating firms, with high R&D content, and to scientific and technical university structures.
The originality and novelty of the survey thus lies in the size of the sample used, and in its territorial, sectorial and disciplinary distribution, as well as in the fact of having made a qualitative and quantitative study of the various stages of collaboration, ranging from identification of the promoter to the indications given and future programmes.
The survey was aimed at analyzing actual and predicted changes in industry-university relations, viewed as a test bench also for this type of interaction.
In response to initiatives of stimulation and support, and to the

presence of existing institutions in a number of countries, which have been set up to encourage these relations, it is emphasized in a number of quarters that universities are forced to make a considerable effort to preserve the fundamental aims of research, i.e. their commitment to basic research and the freedom of the researcher. This concern is indicative of a fear of an undue commercialization of the contents of research funded by industry and therefore of a partial neglect of the specific aims of university research.
One frequently recurring topic of discussion is linked to the effects on both education and industry of increased cooperation relations. In the case of education these could take the form of a double push/pull effect involving increasingly specific fields of application. Although the result of requests from industry, this would nevertheless have a stimulating effect on education.
From the analysis of the results we have identified five large areas have been identified for which it has been possible to ascertain development up to the present time and that which it is reasonable to expect in the future. These areas group together the types of relation most frequently found linking industry to the educational world.

i) *Shared research and research contracts*
ii) *Exploitation of results and technology transfer*
iii) *Exploitation of results by forming companies*
iv) *Services provided by Universities (consultancy, technical assistance, testing, certification, etc.)*
v) *Education and Training*

We are not giving any detail on the first four items but only on the fifth as this last issue is the one particularly interesting for the purpose of the present Report. As already mentioned, the demand by firms for this kind of educational activities is growing. Our analysis pointed out as in Italy this type of relation develops in three main ways:

a) *cooperation in teaching*, by means of which part of the students' training is carried out in-company, where they can participate directly in the specific activities, thus learning about working methods and enhancing their perception of industrial priorities. Furthermore, they can then directly apply what they learn, at the same time gaining experience which will stand them in good stead in their future professional life;

b) *permanent training* is a tool which can be used to substantially close the gap between technological development and the knowledge possessed by the personnel of the company that is seeking to introduce it. The application of new technologies demands knowledge that is usually not to be found among company staff. The acquisition of this knowledge is often a *sine qua non* for maintaining the company's competitive edge. The demand for university and in-company refresher training is constantly increasing. In Italy this type of relationship is fast growing.

c) *staff mobility*, i.e. periods spent by university lecturers in the company, or company personnel at the university, is an increasingly frequent interrelationship method. These temporary transfers of staff not only help to enhance training but also boost R&D activity and allow

a more accurate assessment to be made of the needs of the two institutions.
In the case of Italy the deep-lying differences between the two universes, together with a certain resistance to change, have in no way encouraged the spread of forms of collaboration which, in theory at least, appeared very interesting, but the situation is evolving towards a closer approach between the two partners.

Large and Medium-sized companies

The direct inquiry carried out has been based on some interviews with large and medium-sized Italian companies, among the most innovative on production systems or strategy of development: Himont (chemicals) , Alfa-Wassermann (pharmaceuticals), Mandelli (automatic production systems), Ansaldo Trasporti Ferrari and Fiat (motor vehicles), Pirelli (rubber).

The first important tendency which emerges from our cases, with reference to large or medium-sized companies, is the establishing of a closer relationship between the training department and company top management. This tendency conforming to the general context of the most industrialized countries, proves that company top management is more interested in the processes of training and developing human resources. Within big companies, the training department, still typically subordinate to the personnel department, is planning a role which is becoming more and more central for the processes of definition of overall management strategies. A clear and important sign is given by the establishment of various kinds of direct communication between the training function and company top management.
Contrary to some of the most advanced managerial experiences in an international context, in Italy, on the basis of our panel of companies, a resolute thinking of the "pivot" relationship between the training department and other functions or between the former and company top management cannot be found.
As for the company cases which have been studied, although the communication that links directly experts in training to company top management is positive, all the same it is of a "top down" kind. The training department defines its strategy-line, on the basis of the company strategy-line, it looks for approval, then proceeds to a fulfillment, often directly reporting results to managing directors. In short, people responsible for training are still far from partaking of the initial definition of overall management strategies, in their role of consultants or experts in strategies for personnel developing. This is with the exception of two cases, among those studied, which follow this kind of approach; in the remaining ones, the training department absorbs the overall strategy-choices and adapts its own work strategies to them.
The second tendency noticed for higher professional education within companies and emerging from the majority of the interviews (in one case only has this tendency not appeared), is the increasing demand for education and expectations in comparison with its effectiveness in

terms of "transfer" to the job.
The most frequent answer seems to be strengthening the services of the training function.
With one exception, no choices of a wide diffusion of both training processes and selection criteria have been found. From some experience within big European companies, it is possible to see that, in a situation of increasing demand for amount of training and quality and effectiveness of expectations, the training department is usually crushed between feverish requests for adaptation to pressing demands and frustrations deriving from results often connected to reasons independent of the function itself.
According to this approach, the training department becomes a service and specialized advice centre, often organized as a "profit centre" facing internal demands with a "customer-consultant" relationship, in which the customer is the only one responsible for his/her choices. The strategy consist of concentrating the training function on the most serious problems with a careful selective attitude and in spreading both means and opportunities of training "on the job" as much as possible. The latter is not a banal "learning by doing", but a formula which is well reasoned and guided by experts in education, playing the role of internal consultants, specialized in adult learning strategies.
On the contrary, in our cases, with one exception only, no promotion of wider spreading strategies of learning has been found. Learning is confined to the training department, and is often transformed into a co-ordination of specialized resources acquired outside the company.
The tendency to transfer didactic knowledge to managers or to any person responsible for coordinating collaborators is as limited as the custom of "turnover" of trainers. This practice could be useful in order to spread a culture of training within the company and at the same time to aim at preparing trainers who are also well acquainted with the company.
The image emerging from our cases cannot be defined as excessively static, jet it is certainly not advanced as regards innovating level.
This evaluation is proved by the answers given by the persons interviewed about the training methods adopted. Although they underline the necessity to adopt active methods, most of the companies mainly use lessons in a classroom and practice, as for "off the job" training, and co-operation with projects or groups, as for "on the job" training.
There is a great demand for services outside companies to get some education for medium and above all high level managers, but not in one way only. In general, people decide to take part in external initiatives when an opportunity is given to meet various companies and countries. Specialized, technical training is usually done within the company except in those few cases, for small groups, when long specific courses at a high quality level are thought to be needed.
Then foreign Universities are frequently applied to for managerial subjects, while as regards technological fields, in which Italian Universities have a good reputation, they are less frequently applied to.
Training within companies or within centres belonging to them has priority (about 80%).
When a company does not have its own training centre, it frequently addresses higher education institutions and asks for trainers and experts in training to support the initiatives that are planned within the firm. The companies which have been interviewed have pointed to the

considerable difficulties in the market of training services: the supply of high professional education is thought to be not so wide and often of questionable quality. They complain about both lack of clarity and of rules which might improve the standards of quality. To face the above-mentioned needs, the companies often promote the establishment of services specialized in offering education. They are various forms of partnership such as between enterprises or between these ones and University or else between enterprises and associations and local authorities.

Even though some kind of partnership between enterprises and University is present, as has been underlined in this chapter, the relationship between enterprises and University services is not easy. New bodies springing from the co-operation between enterprises and University are generally considered much more effective than the initiatives of co-operation with present University institutions, which seem excessively rigid.

All the interviewed companies emphasize the difficult relationship with Universities, which are seen as stores of very good competence, which are nonetheless inadequate to the rhythms and specific needs of the companies. They have a higher opinion of scientific faculties, while the opinion is less favourable for faculties on managerial disciplines. The interviewed companies have unanimously stressed the need for reforms which make the passing from a University career to business and vice-verse easier; reforms which make the development of common projects of research and education possible; reforms which make it possible to diversify the various curricula of studying, updating them to the demands of the companies.

In brief there is a stress on the need for mechanisms making University structures more flexible and their supply more varied.

There is a great difference between the University/enterprise co-operation in the technical-scientific area and that in the field of behavioural and managerial education. In the technical-scientific area the co-operation is seen as much more productive, it is often established despite rigid bureaucracy and it gives good results.

The companies think very highly of the background competence available from Italian Universities and their relationships are often intense, thanks to possible overlap between the role of the university teacher and that of the firm manager.

In the field of manager education University is considered, with rare exceptions, as a mere reproducer of its own knowledge. Reference is also made to an inadequate closeness to the real conditions of the company and, at the opposite, a role of imitation of not new theoretical models. In these cases applying to the most famous American Universities is the preferred course of action. In any case, for the time being the University/enterprise relationship is built up through a "mediator", that is to say a teacher with whom a relationship, which could be defined as a "lobbying", had been established. The companies ask both Universities and other higher education institutions, both public and private, to develop a wider competence and skill in adult learning methods.

BEST COPY AVAILABLE

Small and medium-sized companies

The inquiry into thirteen small and medium-sized companies within the Emilia Romagna region, first shows that small companies rarely intervene except with simple updating training. Attending courses offered outside the companies is usually random, while consultants co-operating with individuals or project groups are preferred. In addition to a great difficulty in finding graduates, particularly in scientific disciplines, ready to become part of a company quickly, there is an insufficient and not systematic education activity within the company. The companies complain about young graduates lacking first of all competence in organization and relations, but also adequate technical knowledge.
The interviewed companies maintain that making a good technician assume the role of manager takes at least ten years. However, given the small amount of offers, the "turnover" is high, despite the above mentioned inadequacies. Both these aspects make the problem of medium and high level manager training within small companies very serious and emphasize the role that higher education institutions, University in particular, could play. The data reported in this chapter on prevailing full-time initiatives carried out with the traditional method of lessons in the classroom, unfortunately shows the absolute inadequacy of the present supply of higher professional education. The inquiry conducted shows a general lack of confidence on the part of the companies in external training institutions, public or private. At the same time it gives evidence of great interest in co-operation with University and research centres.
The companies explain these types of partnership with the necessity to enrich their technological knowledge, to receive some instructions on application hypotheses, to have laboratories which might be too expensive for a small company.
At times the most innovative companies apply to internal laboratories aimed at research and relatively free from the deadlines of firms. This kind of solution is usually impossible for various reasons such as the size of the company, rhythms of innovation which would not justify the existence of research laboratories and so on. Some experiments of co-operation between Universities, research centres, enterprises, local autonomies and category associations have taken place in order to give an answer to this very last case. A typical example is the "Polo tecnologico di Piacenza" which, together with other objectives also aims at education. It is also possible to hint at some multifunctional centres where technology laboratories, experts in firms and universities, experts in organization problems offer their advice and share services for laboratory activity. Finally, there is the formula of direct agreement between enterprise and University which, however, is the least productive. The companies generally agree that if some specific services of entrepreneurial kind are not formed, the co-operation with University will remain difficult because of the rigidity of a bureaucratic institution that may not be fit for relationships with different bodies. Small companies, as well as big companies, prefer a direct partnership, almost of a "lobbying" type, with the teachers who make possible use of the services in a more flexible way. The relationship with a teacher in his role of mediator

is not at all without problems. The companies complain about poor didactic preparation or lack of competence in using specific and effective methods to teach adult people.
The results emerging from the analysis of this sample of small and medium-sized companies give very similar indications to those of big companies: lessons in the classroom and training are the most used methods for "off the job" education, as working in specific projects and groups are those largely prevailing as "on the job" methods.

Some conclusions

Some final conclusions can be drawn both for large and small-sized companies. All the companies aiming at effective training methods, in common everyday life use learning methods which vary very little from one another and which are too closely linked to old-fashioned methods of organization. Both large and small-sized companies complain about the poor aid offered by higher education institutions as regards development and diffusion of competence in adult learning methods. As the most innovative tendencies in an international context testify, the ability to encourage and support learning processes is more and more widespread. It comes from the specialized background of education experts and it becomes basic competence common to all managers. Perhaps the most interesting result of this inquiry is given by a clear sign: as a first step University should create and spread basic competence on adult learning methods and at the same time it should develop relationship and communication abilities. The present organizational development of the companies is approaching a frontier which could be defined as "learning while working" (which is not the same as "learning by doing"). Higher education institutions seem to be unprepared to face this challenge. Some European experiments could give useful suggestions: for instance there is an interesting Spanish experiment with centres, one for each faculty, of research and education preceding didactic competence and open to all graduates. This experiment is undoubtedly a coherent way of developing the two typical tendencies of University centres: scientific research and teaching methodology.

Finally the companies look for graduates who can be introduced into the productive processes more directly. Apart from the lack of graduates in specific technological areas, which is unfortunately still great (despite the employment of chemists and engineers), a long period of training in a company is necessary. People are compelled to wait quite a long time before being able to use an adequate competence. This investment is possible within large-sized companies, while it causes remarkable troubles within the small-sized ones, because they do not have specialized personnel for training.
In this case specific managerial training could find valuable support in the various forms of co-operation between University and enterprise. This is possible provided that University has trainers, not teachers transferring didactic methods used in the classroom to training medium and high level managers.
These difficulties lead the companies to relationships with famous private centres often very expensive and controlled with difficulty by small-sized companies without personnel skilled in education.
Poor results, deriving from a difficult understanding between buyers

and providers in the education market, cause lack of confidence on the part of small-sized companies in the external training on offer and preference for long and inefficient training processes of co-operation. Inadequate University curricula are a further obstacle to the development of human resources in a company. The more productions are sophisticated and relationships between employed graduates and personnel are good, the greater the obstacle.

In any case University or post-graduate education cannot substitute the necessary training on the job. The question is how it is possible to organize education and training offered outside the company to make continuing training within the company brief and effective.

Students ending their University or post-graduate curricula and entering work must inevitably reorganize their competence. These have a completely different meaning compared to the one within the education system.

Reorganizing means reviewing and elaborating continuously what has been learned and trying to solve problems in a context of work. This vocational guidance is not immediate and requires constant training, with training periods "on the job" and "off the job" as part of a larger plan.

An interviewed person said "the problem of those who must co-ordinate, on a technical level, their responsibilities with other people's is almost philosophical. Acquiring specific knowledge may be a problem, but it can be solved with some training in a company. What is difficult to learn and might be a bit traumatic for people, just like me, leaving the faculty of engineering, is the ability to co-ordinate different people in a nice but also efficient working environment".

An employee responsible for quality control in another small-sized company described the professional figure his company needed with these words: "not only a good technician, well acquainted with the materials of his area, but also a skillful person in solving problems. What is needed is his ability to analyze, to see the problem and solve it. When an engineer leaves University, he already knows a lot of what is to be known of a company like this, he knows how to learn new elements but he doesn't know how to connect them together to solve the problem. This is really the most important thing".

Again in another interview some people said: "What we need is not just a technical knowledge of our products and our technologies. We need a collaborator who is able to create his own job".

These examples, expressed in very simple language, focus on the main problem: it is necessary to have- a technical-specialized education, but it is impossible to neglect a behavioural education. It it impossible to build up effective relationships with the companies, particularly small-sized companies, simply by transferring typical University didactic methods used in classrooms. Finally, there are problems of inadequate content. In Italy, for example, in the advanced materials field, the supply amounts to only 9 post-graduate courses, 3 skill training schools and 2 further training courses. A good and diversified supply of technological and specialist contest is lacking but needed. It would not, however, be effective if it were not based on specific active methods inserted coherently in the organizational context.

Notes to Chapter III

(1) This data bank offers the main structural variables of the education supply, both basic and higher, initial and continuing, public and private.
Furthermore, it represents a source which makes available highly updated information (referring to 88/89 for the "public system" and 89/90 for the "private" system).

(2) It should be pointed out that as far as the "private system" is concerned, the processed data presented refer to planning the calendar of educational activities. The planning approximates quite closely to the scheduled courses carried out, while it excludes all initiatives requested by the companies on the basis of a specific project. This offer will be analysed in the part dedicated to in-house training. With reference to "public" education the processed data refer to initiatives funded directly by the Regions and only to part of those funded by the European Social Fund, i.e. to all the initiatives included in the Regions' ordinary educational programmes, and coincide almost exactly with the initiatives actually carried out.

(3) As an index of relative centre size both the number of courses and the number of training hours carried out will be used.

CHAPTER IV

HIGHER CONTINUING PROFESSIONAL EDUCATION: THE ROLE OF THE UNIVERSITY

Legislative and institutional framework

Attention has hitherto been focussed on the "system of government" of higher continuing professional education, which has been lumped together with general vocational education system by the State and Regional legislators, except for the few notable cases that have been outlined and which have in any case made little difference to the overall system examined so far.

The system recommended for activities of updating, retraining, specialization and further training of management staff has thus received but little detailed and specific attention from the State and regional Administration and has remained in the limbo of a general model. Only individual specific concrete processes have been initiated as a result of the interest displayed by individual public and private operators.

Side by side with the system described so far it is possible however to reconstruct a wide range of possible action in the field of higher continuing professional education in which the focus is shifted from the Regions to the Universities.

The regulatory complex governing the functioning of the Italian university is rather complicated and is currently being modified by the draft bill on university autonomy now before Parliament. In fact, the norms governing this sector are few and highly limited. From the overall picture it emerges only that on the 9.5.1989 the Ministry of the University and Scientific and Technological Research was set up and that the responsibility of these bodies was ultimately transferred to a new and different administrative branch.

Provision is made in the law for the University to carry out higher continuing professional education in two main ways, somewhat similar to what has been found for the Region and for the lower educational level. These activities can actually be managed autonomously by the Universities without any external support, using their own lecture rooms and structures, by organizing courses of one year's or some different duration in the different subjects. They may also enter into conventions with the Regions or the smaller local authorities, with the local health units (USL) or with private companies or consortia thereof, and with other social bodies organized into associations.

Of interest as far as the first form of intervention is concerned is law 162/1982 which reorganizes schools set up for special purposes, as well as refresher courses. Provision is explicitly made in this law

for the Universities to organize:

1)

Schools of specialization leading to postgraduate diplomas awarding the holder specialist qualifications in his or her professional field. At the end of these courses, unlike the structures examined previously, the University may, for the above-mentioned reasons, issue specific professional qualifications.

2)

Courses of higher studies to satisfy the need for further knowledge in given study areas as well as needs of professional updating or requalification and professional education (1).

The aim is to bring the University closer to the educational needs of the workplace, of employees at the higher levels, by offering them the possibility of returning to the classroom and of refreshing their previous training. In practice, they are returning to the educational cycle geared to more specific ends than normal degree courses.

The characteristic which makes the courses of higher studies even more important is that they may be organized by means of conventions entered into with other external bodies.

These courses actually provide a more dynamic and flexible tool, which may be used on a permanent or temporary basis, in order to satisfy specific needs or in a more permanent fashion.

The prevailing idea concerning these courses at the time of their introduction was that they were distinct from the purely scientific research doctorates. Their purpose was to mark the University's entry into the field of continuing permanent professional education by means of short compulsory-attendance training periods on an extremely wide range of topical and practical subjects.

Furthermore, at the end of the Higher Studies course the University issues a simple certificate of attendance and not an actual diploma valid for professional purposes in the broad sense of the term. Once again we find the determination to keep the power to issue actual qualifications outside the educational scene whenever, as in this case, subjects other than school or university bodies enter as partners.

As far as the ways in which universities can act through conventions established with other institutions are concerned, there are practically no limits to the type of the other parties to the convention. In the first instance, as we have seen, the State, the Regions and the lesser local authorities are concerned with the requalification of their employees, specifically for the purpose of providing them with a decision-making capacity firmly based on normative, technical and technological data which are kept as updated and concrete as possible. For similar purposes also the other public, non territorial agencies can enter into this type of convention with the Universities. Lastly, also private organizations may enter into conventions with the university. Typical examples of cooperation between universities and firms or other territorial agencies are the

various educational programmes implemented as part of EEC programmes, for instance, the Comett programme, or the participation in technological poles.

What usually happens in this type of contract is that the University bears all the organization and teaching costs and the other partner pays the remaining costs.

It is obvious that the teaching personnel will almost entirely consist of University staff, while technicians or experts from outside the University may, as we have seen, be engaged on a contractual basis.

Other possible forms of University participation in higher continuing professional education are cooperation initiatives between firms and universities, which differ from one single university to another.

Higher Continuing Professional Education at University level in Italy:an analysis of the existing structures

1. Professional education at the higher educational level has had a rather peculiar and specific history in Italy.

In the early '50s, two of the largest firms in the industrial sector (Fiat and Olivetti) decided to set up a general and refresher training school for managers based on the US "schools of business administration". Such schools were totally absent on the Italian scene and very rare and underdeveloped in the rest of Europe. The result was the establishment in Turin of IPSOA (school of business administration) which seemed to project the country into the forefront of management training. In actual fact, this model was not very widely adopted in the years to follow. The CUOA was set up at Padua, as an example of collaboration between university and an association of local industry, and the ISIDA at Palermo, as an example of an initiative supported by public funds. As an example of a school designed for the in-house training of managers the "Scuola di studi superiori di idrocarburi" was set up by ENI (a public holding company operating in the chemicals sector) in Milan.

After this period (five years 1952-1957) no similar initiatives were introduced for two decades (except for ISTAO at Ancona). This was due to the lack of interest shown by university institutions in participating in such experiences, which were believed to be linked too directly to vocational training and in contradiction with the pre-professional training aims attributed to the university in Italian cultural tradition, as well as to the predominance of in-house training of management, which attributed greater importance to theoretical training in the subject (which could be acquired in the traditional university) rather than to company management techniques. As regards the latter, budgetary control (synonymous with economic control of performance) was introduced into the Italian company system (at least on a large scale) only in the late '60s to flank and partially replace financial management techniques (`banking techniques', as taught in the

economics faculties).

This trend began to be reversed in the '70s thanks to several farsighted initiatives which seemed to run counter to the prevailing atmosphere of the time. In Italy considerable criticism was directed against any mixture of public and private in the training field. Furthermore, the prevailing trend was towards increased equality in education rather than to stimulate the emergence of individual qualities and of rewards according to merit. The "Scuola di Direzione Aziendale" was set up by the private Bocconi University in Milan as well as a master's degree course in Engineering specializing in company management by the Milan Polytechnic. In Turin the University instituted a post-graduate MBA course in 1978. These initiatives heralded a trend which began in the '80s and was to affect not only the universities but a whole series of private initiatives aimed at providing training facilities at different levels for secondary school certificate holders and graduates seeking their first job who were convinced of the need to improve their professional image in order to satisfy the requirements of the labour market. Also interested were those already possessing working experience but who wished to update their skills and adapt them to cater for changes in the productive processes and labour organization. The firms themselves, in the various sectors, particularly industry, affected by changes due to the spin-off from new technology, mergers and the internationalization of the markets (particularly in view of the forthcoming single European market) and, for different reasons, in the services sector, which is characterized by strong development pressures and by the creation of new professional profiles with a high education level, are induced to organize and support educational structures which will allow the high professional levels deemed necessary to be attained.

Wherever the private companies are unable to promote such activities, owing to problems of size or uneven territorial distribution, government support is becoming increasingly frequent. However, this support does not come from the traditional educational structures (i.e. the universities, almost all of which are public) but rather from the bodies set up to support the economic development of the peripheral areas. This is particularly true of the bodies concerned with the development of the southern regions, in particular, FORMEZ (a vocational training body set up within the framework of public action in favour of the southern Italian regions, the 'Mezzogiorno' which, it should be borne in mind, accounts for one third of the total national territory).

2. The development of professional education at the university level has taken place somewhat chaotically in recent years. The market is changing constantly and the demand for education is very strong but irregular. If follows that (a) 'on the job training' methods are found to be inadequate because they are too slow and so the demand is shifted outside the companies; (b) the demands for new technical and professional skills are partly determined by real needs which find no answer in the traditional higher education processes, but are due partly also to cultural imitation processes: to have a certificate proving attendance at a specialist course is now part of the CV of any ambitious young person in accordance with a normal mechanism which, at the individual level, reflects the tendency toward general upgrading

which characterizes rapidly developing societies. It derives, for example, from the inflation of the term "Master" attributed to any updating educational activity and that now, in the absence of any equivalent educational level officially recognized by the university system, calls for regulation in order to distinguish between educational offers in qualitative terms.

In the constantly and chaotically changing market of (higher) continuous professional education several categories of educational institutions can be distinguished:

(i) Different structures, mostly private, and in some cases expressed by universities, provide facilities for management training. These courses are designed to provide sound technical and general cultural training in general management to personnel already possessing working experience but still young, who are called upon to follow through the transformation mechanisms affecting labour organization and productive processes in an increasingly internationalized perspective. These professional figures are not given only or predominantly sectorial technical skills but above all it is endeavoured to point out which aptitudes and skills are required in managing a company (or a sector thereof) under risk conditions. This approach, represented in Italy by the model used at the SDA-Bocconi, seems to be particularly well favoured by the cultural bases comprising the general cultural stock in trade of the average Italian university graduate. At the same time, the generalist type cultural approach as represented by the 'liceo classico'.

However, these courses may legitimately be defined as MBA courses as they are highly selective, extremely tough and very expensive (owing to the Italian practice of providing public university education at minimal costs).

(ii) Similar general management courses but with a bias towards specific economic sectors are run by institutions representing the interests of specific categories.

(iii) The above sectorial needs are often defined at the local level and give rise to associative forms among sectorial representatives, local industrial unions, local university and local banks for the purpose of setting up specifically targeted general management courses.

(iv) Aggregations of the above-mentioned type arise out of the establishment of training schools designed to provide specific technical education to different types of personnel, e.g. middle and higher management, in need of specialist updating with regard to specific technicalities. Here the level is lower, entry is open to graduates and diploma holders and selection is less severe and the courses themselves may even be shorter. Particularly in peripheral areas, for instance in the Mezzogiorno, the level of these initiatives proves to be quite low. Sometimes public funds are used to finance them and recruiting is based more on numbers than on quality, so that the initiatives come to represent a form of waste and a rather odd use of education (quite often addressed to the young inexperienced jobless).

(v) The trend towards professionalizing upgrading is clearly represented by the forthcoming establishment of post-graduate courses provided by the universities themselves: there are plans at the Milan

Bocconi to open 5 new post-graduate courses for its own students covering several different sectors and designed to make a more comprehensive appeal to creativity and intuitiveness than is contained in the educational philosophy underlying traditional courses.

Initiatives of this kind are in any case compatible with the current work of syllabus review in the various university curricula which will lead to an almost universal increase in course length of one year.

3. The rapid developments occurring in this educational sector make it particularly difficult to quantify its importance, especially in view of the qualitative differences outlined above.

In the late '70s the five schools providing MBAs produced 175 graduates per year. Five years later the number had tripled. The majority of the toughest courses of this kind limit the course intake (often around 30-40 students for ad hoc structures). The SDA-Bocconi accepts no more than 130 graduates on its MBA course (out of a total request some 10 times larger). For the academic year 1988/89 some 180 postgraduate professional education courses were counted (irregularly distributed but responding overall to the different levels of development in the country: 85 in the north-west regions, 38 in the north-east, 34 in the centre, 34 in the south, 1 on the islands (Sicily and Sardinia). Of these courses, 165 were defined as "MBA" courses.

It is currently being attempted to rationalize the sector through the SAFOR (Associazione per la formazione alla direzione aziendale) initiative to set up an official list of schools running post-graduate courses providing professional education. The intention is to lay down a number of criteria which will guarantee the seriousness of the "Master" courses. These criteria include course duration (minimum 12 months), the structure of the school (at least 6 permanent teachers), capacity to place at least 80% of their graduates on the company labour market within 6 months of the end of the course.

Characteristics of the institutions examined

The information and data of the present survey are based on 41 training programmes (that we have analyzed for the purpose of this Report) corresponding to certain quality characteristics and mostly orientated towards manager training. The programmes were initially divided into three large categories, respectively related to (i) structures directly related to the university (public or private) or closely associated with them; (ii) private structures set up especially to provide a similar kind of training; (iii) private structures (variously funded with public monies or directly dependent on public funding) set up in southern Italy to provide educational development in those regions.

(1) The following institutions belong the first category (a total of 11 programmes)

Centro Studi turismo, Perugia
COREP Turin Polytechnic
CUOA, Padua
Istao, Ancona
LUISS (Libera università@ internazionale di studi sociali), Roma
MIP (Consorizo Universitario Politecnico), Milan
SAA (Scuola di Amministrazione Aziendale), Turin
SDA-Bocconi, Milan
SMEA, Cremona

(ii) The second category comprises (for a total of 14 programmes):

Domus Academy, Milan
Federazione della Cooperative, Ravenna
IFOR, Milan
IPSOA, Milan
ISDA, Rome
Nova Comum, Como
Profingest, Bologna
Publitalia, Milan
Sogea, Genoa
Unioncamere, Rome

(iii) The third category (operating in the Mezzogiorno) comprises 16 programmes provided by the following structures:

ANEA, Naples
ISIDA, Palermo
Novum Mediterraneum, Rome
PROSVI, Milan
SDOA, Salerno
Spegea, Bari
STOA', Naples
Tecnopolis-CSATA, Bari
SOGEA-Sardegna, Nuoro
FORMEZ, Naples.

Structure of the schools

In most cases these institutions were set up specially to implement educational activities. Only in a few cases have the courses been added on to existing structures (such as the university). A separate case is Formez, which operates through a school of its own at various levels, with its headquarters in Naples. At the same time it promotes and directly supports other initiatives described herein, such as ISIDA of Palermo and STOA' of Naples or CSATA (Tecnopolis) of Bari. ISTAO in Ancona is the only instance of a Foundation.

The most common juridical form is that of "consortium", the members of which in many cases are single firms, the industrialists' association, the chambers of commerce, the federation of cooperatives,

but also the universities and the local authorities: i.e. communes, provinces, regions. Private firms are present in more than 70% of the cases as promoters and representatives of the main customers.

The schools usually have their own headquarters, although they often do not possess all the equipment or premises they need (a frequent occurrence in southern Italy). The permanent staff of the structure running the courses totals 10-20 persons on average (only in a few cases, particularly if compared with the universities or Formez , it is to some extent part of the permanent structure of the institution). The headmaster is usually the one responsible for teaching matters, except in larger structures, in which the individual parts of the programme are entrusted to outside consultants.

In addition to the main courses (MBA etc.), practically all these institutions also run side activities, such as research (very important for ISTAO), organization of seminars and short courses for company middle management, consultancy (carried out by teaching staff and the better students) concerning management problems of local companies, and the organization of workshops on topical management issues or matters of interest to the local economy.

Links with other institutions

The most frequent contacts are those between the training structures and firms, which represent their main clients and often provide some of the teaching staff. Links with the universities involve about half of the initiatives in the survey. Except for cases of direct linking, relations are rather sporadic and uninstitutionalized, as a result of the tendential resistance of the academic world and institutional difficulties, for which only recently has there been any formal attempt to find a solution. This leaves the frequent relations at the personal level between individual university staff and the schools. Links between universities and foreign management schools are still partial and comparatively infrequent, except for a few cases of joint ventures like STOA and Novum Comum. A quite different case is that of the SDA-Bocconi, which is formally associated with 10 of the largest schools of business administration in Europe and every year provides parallel courses in Italian or English. It 1990-91 it is also organizing a master's degree course in "International Economics and Management", taught entirely in English mainly by English mother tongue lecturers.

Course typology

In a widely used classification of programmes of the main Business Schools in the United States the following distinctions are made:

General non structured course
General semi-structured course

Highly specialized course
Moderately specialized course
General, fully structured course

According to this classification, based on the didactic structure of the courses, the majority of the schools considered tend to provide the last type of course in the list (general, fully structured). The most widespread aim is of the general company type (although cases of aims specialized according to function, sector, company size or professional profile are also encountered).

"Generalist" courses are provided by Anea, ISDA, ISIDA, ISTAO, MIP, SDA, Sogea and SAA.

Courses of functional specialization are provided by CUOA (which offers specializations in administration and control, marketing, technology and organization), by SPEGEA (which offers specializations in organization, marketing, finance, production and logistics).

Courses of sectorial specialization provided to cover a specific sector ,such as those run by DOMUS (focused on the design sector), SMEA and Prosvi (in the food and agricultural sector), Novum Mediterraneum (in the hotel and tourist sector), ISTAO (designed for future textile industry managers) and Formez (for public administrators).

Courses specialized according to company size are beginning to be offered to make up for deficiencies in the educational needs of small and medium enterprises which cannot afford to run their own in-house courses. Examples of these courses are ISTAO, the Federation of Cooperatives of Ravenna, Profingest and Formez in Naples, which this year for the first time is running a training course of consultants to small and medium enterprises (denoted as "Business Planners").

Courses specialized by professional profile directed to train for a specific career are those provided by Unioncamere (Rome) to train development agents for new enterprises in the Mezzogiorno; Publitalia, which aims at training company communications managers; Formez which, in cooperation with IRI and Asfor, aims at training management training personnel (MATER programme); CSATA (Tecnopolis programme) which involves the training of engineers for the purpose of creating experts in industrial mathematics.

Costs

From the user's point of view these vary widely, from the 25 million lire for the Master in General Management of the Nova Comum (14 month course), 20 million for the Bocconi MBA (16 month course) and for IPSOA to 13-15 million for the Master's degrees offered by SAA, Domus, Profingest, Sogea, CUOA. At the bottom end of the scale are the completely free courses offered by Unioncamere, Istao, Sogea-Nuoro, ISIDA.

The origin of the free courses varies. ISIDA is funded completely

by Formez, Unioncamere receives half its funding from the reference associative structure and the other half comes from the European Social Fund. The same is true for Sogea-Nuoro which also gets funds from the Sardinian Region. Also ISTAO receives money from the ESF, the balance being provided by the founder members (a number of firms) in the form of study grants. Many grants are provided by schools associated with the universities, while the "honour loan" system is now being instituted (in the widely used form of unsecured interest free loans which course members undertake to repay after completing their course). Formez courses are normally free and often supported by annual grants to participants which vary in size according to the students' place of origin (i.e. resident in Naples or coming from other parts of Italy).

Only a few institutions (ISIDA, Istao, Unioncamere, Profingest) have disclosed their costs per course member (about 25 million lire per course).

Student characteristics

Within the sample studied (1988), out of about 10,000 requests for admission to courses (some of which began this year and are not included in the survey), the number of students admitted totalled nearly 1300. The schools with the longest standing tradition consider the optimal ratio to be 1/10, while the more recent ones tend to be more open. Those located in southern Italy have only recently begun to clamp down on entries and to raise the entrance standards. Schools located in the centre-south tend to recruit locally, while courses held in the north attract participants from all over the country. Only the SDA-Bocconi recruits at the international level (about 23% of its MBA candidates).

The average age of course members is 26-28 years, with a large majority of males (70-80%), except in more recently established institutions such as Domus or Profingest, where the percentage of women rises to 40-50%, or in the Unioncamere course where women form the majority.

The degrees most frequently held by candidates are Economics (36% at the SDA-Bocconi MBA), Engineering (34% at the SDA), Law and Political Science (13% at the SDA) and Agrarian Science. Previous work experience is common in only a few cases (SDA and SAA), while elsewhere the majority of newly graduates have no significant previous work experience.

Characteristics of the teaching staff

The vast majority of the teaching staff on these courses are not a permanent part of the structure of the organizing institution. The exceptions tend to coincide with direct link experiments with the universities (MIP, Smea, CUOA, SDA, IStao).

Company consultants and company managers account for the majority of external teachers, followed by university lecturers. Affiliation with the business world is usually considered to provide a more

effective guarantee by schools which are not directly linked with a university institution. The forms in which teaching is imparted vary from the role of tutor (considered of central importance although it is ignored in the traditional university structures), to that of 'witness', who is occasionally invited to describe a specific experience, and that of lecturer engaged for several days on a specific topic, of area coordinator who organizes a didactic activity referring to a functional section or area of the course (of 20-40 days duration), and the director of studies employed by the school as a permanent employee or by contract for the entire duration of the course.

Admission to course: criteria and procedures

The required admission qualification is normally a (university) degree. Upper secondary school certificates are acceptable in certain cases if accompanied by several years of professional experience. On some occasions there are other specific requirements (as an alternative to the degree) such as being the children of businessmen (Ipsoa, Spegea), holding an upper secondary school qualification issued by an institute of tourism (CST) or a diploma of statistical expert (Federation of Cooperatives).

Preference is generally given to previous work experience, although this is not decisive for entry. However, the trend is towards giving increasing importance to the working experience, as has already been the case for the SDA-Bocconi.

A knowledge of English is universally required. In many cases parallel language courses are organized to raise the level of knowledge already acquired. There is no minimum age requirement while the upper limit is around 29-30, which can be extended in some cases to 35 (MIP and Publitalia), and with some exceptions being made in specific cases (courses for management teachers).

the selection criteria consist of different combinations of (a) curriculum analysis; (b) individual interview; (c) written test; (d) aptitude test; (e) group interview. In practically all the schools at least three selection tests are given. The ASFOR validation system requires at least two. A correlation has been noted between the number of selection tests and the prestige of the school.

Course methods, objectives and programmes

No significant differences were found in the course programmes examined with regard to course duration. Most courses last between 35 and 70 weeks. The tendency to make a clearcut distinction between serious and less serious courses involves discrimination also in terms of time (course duration).

The most commonly used teaching methods include classroom lessons (35-50% of total time), group work and case analysis (about 25% of the time) as well as simulations, project works and in-company training periods. Between 5 and 10% of the total time is devoted to the acquisition of information technology. Despite the variety of methods

used, too much time is still devoted to the traditional lesson and too little to simulation methods.

With regard to the nature of the training programmes used in the schools, two traditional approaches may be distinguished aimed respectively (i) to transfer methodological information and knowledge related to resources management and the attainment of the company's aims; and (ii) to develop attitudes and behaviours associated with the relational aspects which determine "company styles" and intra-company dynamics. Of the two approaches, the former (related to knowledge transfer) seems to prevail in the cases studied, while only marginal importance is attributed to the relational aspects. In essence, the programmes give priority to "knowing" and "knowing how" rather than to "how to behave".

The basic contents of the management training courses (the so called "generalist courses" which have been seen to form the cornerstone of post-graduate professional education) are indicative of an interesting shift of emphasis in favour of problems related to "marketing" and "finance and management control", considered critical issues by company managements in recent years (starting from the '80s), whereas production was the central issue in the '60s, and organization and personnel management in the '70s.

The internal development of the above "generalist" programmes follows a process which can usually be broken down into three phases:

(a) a homogenization-integration phase in which the participants have to construct a common view of the company model;

(b) a phase of getting to know the company and its functions in which single functional areas of the company, of marketing and of management control, planning and human resources management are dealt with;

(c) a phase of experience in the field aimed at verifying the knowledge previously acquired and characterized by visits to companies and feasibility studies. This is the stage at which in-company training periods are carried out and course participants are often given project work of specific relevance to the host company.

In nearly all the schools there is some form of evaluation of what has been learnt, mostly in the form of written tests carried out during the course (at the end of the single subject modules). Negative evaluations are followed by tutorial help and repetition of the tests at a later date.

Placement

The placement of course graduates with companies is a central criterion for evaluating the quality of the courses (as is confirmed by the ASFOR validation project). Within the survey sample some schools guarantee (de facto) the immediate placement of course graduates at the completion of the course. These are usually the better known and established schools (SDA-Bocconi, ISTAO, MIP, SAA). In any case, nearly all the schools see the "product" absorbed by the labour market within one year after the completion of the course. Greater difficulties may

be experienced by schools located in southern Italy (Isida, Anea, Sdoa).

Suitable placement is more difficult to find for women. It is easier for large firms devoted to production, and slightly more difficult for medium or medium-small companies operating in the services. However, the reliability of these data is limited by the difficulties involved in gathering information and because of the rapid changes occurring in the market to which the product of these schools refers.

Two examples of continuing professional education at university level.

1. Educational activities of the National Research Council

The National Research Council (CNR), the largest national scientific agency in terms of tasks, budget and number of employees, carries out and promotes activities of basic and applied research, technological development and technical and scientific consultancy on behalf of the State and public and private organizations, as well as participating in international scientific and technical cooperation programmes. The Council is divided into fifteen Disciplinary Committees, which are further subdivided into 279 bodies. Its budget for 1989 amounted to 993 billion lire, and it has a permanent work force of 2,522 researchers and 2,795 technicians.

The CNR is engaged in training researchers and technicians, both for its own purposes and on behalf of other public and private institutions. This activity includes also courses run by Agency staff, the award of scholarships at various levels, to be taken up in its own facilities or in other Italian and foreign research agencies, as well as training contracts. It also runs continuing education initiatives in the form of numerous seminars, conferences and congresses.

The CNR also plays an important role in supporting university institutions by means of funding, research cooperation (implemented also by setting up special research centres in the universities themselves), of university courses run by its own researchers and degree theses prepared in its own institutes. The CNR is also one of the agencies authorized under law 382/80 as a centre of courses leading to the Research Doctorate, although this possibility has so far been utilized only partially.

In 1985 the CNR embarked upon a long-term programme for the training of highly qualified research and technical personnel in the Mezzogiorno, a geographic area comprising the less developed regions of Italy. This initiative involves several different kinds of action, including in particular a wide-ranging grant scheme consisting of two three-year training periods for a total of 3,440 grant-years. A total of 1,720 persons have been selected for this activity.

The ordinary educational activities carried out by the CNR comprise a considerable number of different educational actions involving researchers and institutes. These activities may be grouped as follows:

(i) university courses run by CNR personnel;

(ii) courses, schools and seminars organized by the Institutes;

(iii) teaching activities carried out by CNR personnel in courses, schools or seminars organized by non-university agencies.

In addition to the educational activities carried out directly by researchers and Institutes as part of activities organized inside or outside the Agency, consideration must be given also to the various educational facilities made available by the CNR institutes.

In addition to the educational activities carried out directly by researchers and by the Institutes in activities organized inside or outside the agency, consideration must also be given to the educational activity which may be utilized in various way at the CNR institutes. Different scientific and professional profiles may be made for the

personnel to which it is addressed. The second level educational activities, linked mainly to the preparation of degree theses, are supplemented by educational activities designed for personnel who are already qualified. They take place in different ways ranging from the most informal to the temporary aggregation of personnel in training at the various institutes.

In 1989, the last year for which complete data are available, the educational activity of the various types described above was disseminated in a more or less homogeneous way among the various discipline groups of the CNR. However, it was carried out mainly in one or other of the specific activities according to the nature of the research carried out and, consequently of the greater or lesser contacts between each institute with the university, with the other public agencies and with firms.

As far as university teaching is concerned, for example, in the year considered 188 out of the 279 institutes of the CNR were involved (Tab.19). However, the average number of teaching staff per institute was quite different. While in several discipline groups (engineering, chemistry, geology, mathematics, biology and medicine, physics), teaching university courses was fairly common practice, in others (mainly in the human and social sciences) the number of researchers involved in teaching university courses for the institute was rather low.

A more homogeneous situation is that of degree theses prepared inside the Institute. Indeed, also in the institutes working in the fields of human and social sciences the number of degree these was extremely high (Tab.20), even though of course it was even higher in the disciplines in which university teaching by CNR researchers was common practice.

The organization and management of courses, schools and seminars (Tab.21) was common practice in the CNR Institutes. In the year in question (which, compared with the data referring to the preceding years, need in no way be considered atypical), as many as 1106 activities of this kind were organized. The beneficiaries of this type of educational action vary considerably. They may be either solely inside the agency, outside or mixed. There is a decided preference for beneficiaries which include participants from both inside and outside the organizing structure.

CNR personnel have participated actively as teachers in courses, schools and seminars organized by other institutions. Some 905 teaching staff were involved, for a total of 6597 hours of lectures (Tab.22). The location of these activities gives some indication, albeit only a summary one, of the orientation of the activity itself. There is a distinct prevalence of educational action carried out in the university environment (38.7% of the total), which was particularly high for some disciplines, and in the public environment (16.2%).

Also the number of persons whose education was somehow involved with the CNR organs during the year in question was very high. Table 23 shows that some 1836 persons were involved, about half of whom (819) were undergraduates preparing their degree thesis as internal students. Lastly, in the year in question, also the number of scholarship holders and personnel with education-work contracts was rather low and concentrated mainly in a few disciplines.

In conclusion it may thus be claimed that higher education activities represent an important part of CNR activities, even though they are still partly hindered by red tape which often reduces their scope and efficacy, whether the Agency's technical and scientific

potential is high as an important seat of creation and diffusion of advanced knowledge.

2. The Bocconi University postgraduate activity (*) (*) This text has been prepared on Bocconi University documents

Since its foundation in 1902 Bocconi University has continued to follow the objectives of its founders: to train students in economics and business administration and to qualify and diffuse economics education.

Since 1974, Bocconi University gas signed inter-university cooperation agreements that are tacitly renewed each year on the basis of the results obtained. In 1983, it joined the PIM (Programme of International Management), a network grouping European, American and Asian universities linked by a common objective of cooperation in the field of higher education and research according to high performance standards.

SDA-Bocconi and the Master division

The Graduate School of Business Administration (SDA) of Bocconi University is a research and training centre for both recent graduates and experienced managers.

SDA-Bocconi trains managers to meet the growing demand for qualified and highly skilled professionals. Concepts and practical working systems are taught using the most advanced teaching methods.

SDA-Bocconi and Bocconi University are becoming increasingly international thanks to cooperation agreements signed with foreign universities and business schools. Faculty representatives from eight of the major European business schools have met regularly throughout the past years to discuss issues of common interest regarding the development of managerial education in Europe.These eight schools have formed the first European Consortium.

A joint venture, called the Leningrad International Management Institute (LIM), was recently formed with the University of Leningrad. It aims at promoting research and domestic and international managerial training in eastern-bloc countries.

The SDA master courses include:

-The Master in Business Administration Programme which aims to provide young managers with the skills necessary to confront and resolve complex management problems in a dynamic and increasingly international environment. In 1990 the course has been bilingual (Italian/English). The programme is directed at young graduates from any academic field, with working experience.

- The Executive Management Programme (CEGA) is a biannual evening programme for experienced graduates who wish to improve their education in managerial topics and techniques but are unable to leave a full-time employment position.

- The Executive Master is a general management programme taught in both English and Italian. The course is directed at managers who

already hold a position of responsibility but wish to improve their understanding of general management issues.
Applicants to this programme must have an MBA diploma, Ph.D., or equivalent level of higher education.

Master Programme

The Master of Arts in International Economics and Management (M.I.E.M.) is a new and highly innovative programme designed to meet the needs of firms in a growing world economy. The process of globalization involves the cooperation and integration of business activities across both borders and continents and requires a new base of knowledge on the part of managers.

This Master Programme, the first of its kind in Europe, represents a response to the demands of the international business community for young managers with both a solid training in the technical aspects of business administration, and a broad understanding of the global economy and the economic, legal and political forces that shape international competition.

The aim of the program, which has been under study for several years by an international faculty of economists and business experts, law professors and political scientists is to prepare young managers and university graduates for international careers in public and private enterprises or in international institutions.

The M.I.E.M. Programme differs form an M.B.A. curriculum in that it broadens the focus on management concepts and practices with an in-depth understanding of the environment of international business. Less time will be spent on the functional aspects of management, while more time will be given to practical analyses of the relevance of changes in the global economy and world polity to international management issues.

Graduates will have several career paths open to them including country analysts in corporations, international marketing and strategy analysts, managers in charge of relations between business and the European Community and business experts for governments and international institutions.

One of the distinguishing features of the M.I.E.M. Programme is its emphasis on interdisciplinarity. This feature is reflected in both the overall division of courses and the organization of single courses taught jointly by faculty members from different fields. The goal is to teach students how to integrate the knowledge gained from different disciplines to the formulation of effective business strategies at the international level.

Special attention is given in the programme to the economic, legal, and political institutions of the European Economic Community. This European focus reflects both the E.E.C.'s goal to create a more unified market by 1992, and the strategic location of Bocconi University in one of Europe's major business and economic centres.

Course structure

The M.I.E.M. is an intensive twelve-month programme that begins in January. The M.I.E.M. programme requires the full-time participation of students. Attendance is therefore incompatible with other professional activities.

Students may also attend a series of pre-courses aimed at refreshing and broadening their knowledge of the following topics: basic economics, business administration, law, politics, quantitative methods and computer usage.

The M.I.E.M. is divided into four terms. The first and second terms each last ten weeks (January through May) and are dedicated to classroom activities. The third term (June through August) is devoted to an international project. The fourth term lasts 15 weeks (September through December) is dedicated to classroom activities as well as to the preparation of a thesis.

During the first, second and fourth terms, students are required to follow a compulsory plan of study that includes 32 courses for a total of 480 sessions. Students must also choose one of three courses offered in quantitative methods.

Elective courses are offered during the summer term for students who choose to spend this third term at Bocconi University.

A personalization of the programme is obtained through the design of the summer term, the thesis, and attendance of parallel lectures, seminars and tutorials throughout the year.

The specific courses to be offered fall within four major thematic clusters that characterize the programme:

- The World Economy and European Integration

A panorama of the economic, legal and political characteristics of the global economy, including the process of European integration, European institutions, and the functioning of the Common Market.

- Global Competition

An examination of the mechanisms of global competition, including the technological, legal, and political factors that influence trade and competitiveness.

- The Management of the International Firm

An overview of the functional aspects of management in international firms, including international finance and tax planning, and international production and R&D management.

- Strategies for Internationalization

An analysis of different strategies for internationalization including both the choice and the implementation phases of these strategies in various countries and regions of the world.

The calendar of the programme is arranged so that the thematic focus gradually shifts along the four thematic clusters.

Students are requested to design an international project for the summer term, which is aimed at broadening their knowledge and practical experience. This project may include either project work within a firm or a period of tailorised study. The firm projects, organized in close co-operation with the management of companies in Italy and abroad, provide a unique opportunity for students to apply acquired skills to real world situations. The cross-national exchange that results will

also heighten the cultural sensitivity of the participants to the problems of international business relations.
Students interested in particular areas of research may opt to design a personalized programme which may include following courses at a university or independent research within an international organization.

Admission procedures

Candidates must have a university degree or the equivalent thereof. Previous working experience is not a requirement, but may be useful.

Admission to the M.I.E.M. Programme will be based on the following elements:

- personal motivation, as revealed by the personal background and the application form and essay of each candidate;

- two letters of recommendation;
- test scores from either the Graduate Record Examination (G.R.E.) or the Graduate management Admission Test (G.M.A.T.);
- test scores from Test of English as a Foreign Language (T.O.E.F.L.) (for non-mother tongue speakers only). It should be noted that the programme will be taught entirely in the English language;
- the knowledge of a least one foreign language (in addition to English).

The Selection Committee will consider in its assessment the ability of candidates to communicate with others, to adapt to new environments, to exercise qualities of leadership, research and professional maturity and to integrate these qualities with technical and specialized preparation.

Notes to Chapter IV

(1) No reference is made here to schools run for special purposes insofar as they aim to provide students with the necessary job training, i.e. initial training.

Conclusions

The higher education system is in Italy affected by major problems concerning both the social and economic demand for education, training and professional skills, and the comparison with other systems, especially crucial considering at least the European unification processes.

The major problems and delays particularly affect the public structure, which in Italy represents the backbone of the entire system.

On the one end the public system in trying to adapt itself and transform its structures in order to reduce the gap with the international situation, on the other private structures and institutions, which for a long time did not exist at all or were given very limited tasks, are rapidly flourishing and are trying to fill the gaps or substitute in its possible different tasks a public system that in the whole doesn't encourage the multipolarity of the educative system.

The delays in the educative supply

Higher education is in Italy strongly (if not almost exclusively) relying on the public university system, centrally managed until 1989 by the Education Department, now by the University and Scientific Research one. Professional education is, at secondary level, articulated in different sectors both of central (Education Department) and regional competence, and has not, up to now, a strict commitment in the university structures. University itself is not specifically called for offering any professional education nor is formally provided an alternative professional education path parallel to the university.

- The tertiary level doesn't provide a continuing education mechanism that requires (allow) to come back in the educative system after recognized working experiences. At the same time the cooperation with the productive sector has traditionally been rather difficult, whether firms have not always been very supportive in organizing or participating in cooperation activities such as stages and apprenticeships concerning education.

- The university structure did not provide, until few years ago, any level articulation as it was structured on a single model that provided a single type of title the "laurea" degree, got after following a very standardized curriculum, linked to the formal attainment and acknowledgment of the title for professional aims.

- The consequent bureaucratic centralism has necessarily assumed very rigid issues of education policy, for the implicit acceptance by the single university of the authority and power of the central structure, i.e. the Education Department, to address any choice even in sectors of specific autonomous university competence.

- Universities have always struggled to maintain their strict autonomy from the "outside world", on the assumption of the independence of science, and limited any form of cooperation with private initiatives both in the education and research field.

All these factors led to the danger of isolation of the higher education system and to a lack of flexibility concerning the progressive transformation of professional education demand and the diffusion of knowledge. From this relative isolation we can presume it derived the

diminishing fulfillment of the demand by the public system, which is expressed by different malfunction forms such as high abandon rates and delays in the courses accomplishment, low productivity of university, and diminishing education attendance rate for the concerned year group (19-24 years).

The current trends

During the last ten years the modernization process of the public higher education system has progressed, although with some difficulties.

- The university structure has become more flexible with the introduction of post-graduate university courses (the 'dottorato' introduced in 1980) and an intermediate level of education (the special schools, 'scuole dirette a fini speciali' in 1982) which has very recently (November 1990) been replaced by a proper short cycle university diploma.

- Teaching in university has been opened to different profiles of professors not necessarily placed within the academy but coming from very different experiences and backgrounds.

- The new legislative framework allows and promotes cooperative activities with different partners, which reflect a new opening of university to economy and society.

- The university autonomy is considered as essential for the connection with local situation and cooperation possibilities.

- At the same time the interest of firms in higher education activities is rapidly growing. Under the education profile this is clearly shown by the growing interest in the professionalizing of the education system with the introduction of short cycle courses, on which the specific interest of the productive system is very strong. This also explains the considerable proliferation of post-graduate courses. As written in the Report these can be divided in:

i) long courses managed by the very few private universities or by specific institutions established with both private and public support (firms consortia or initiatives for the development of peripheral region, for instance)

ii) short courses erroneously called 'master', often provided by institutions without any tradition and solid background, sometimes created *ad hoc* for that specific aim, almost improvised.

This new and strong interest of the firms is not likely to receive a quick answer by the public university (often not concerned in being present at the professional education level) and is more foreseeable a consolidation of a parallel continuing professional education sector outside university.

- The firms anyway undergo major education and training activities on their own that, in the case of big companies or industrial groups, provide master courses, specifically tailored for the sector necessities.

- The present trend to flexibility and articulation in the higher education system is opposed by the strong resistance by some consistent sectors of the academy, traditionally not very favorable to innovation and change of previous conditions. But the lack of change is only apparent as at the micro level, that is at the level of single professor or researcher

the personal involvement in external activities of consultancy and professional activity is very strong and rapidly growing.

We can therefore remark the paradox of an institution which is globally changing very slowly and entering with many difficulties the continuing professional education 'market' as a whole, but actively present with its single members.

The same paradox, even at a different level, is applicable to the research activities, where difficulties in cooperation an communication between various partners are to be found in the relationship with public or private research centers.Both in the field of scientific research an personnel exchange the micro level seems more effective than rhe macro one.

These resistance to change could be more easily overcame with a strong pressure given by the new global framework, or specific directives of the international context, namely, for our country,the European Community.

Table 1 - Indicators concerning education.

Years	Population in age-group 18-20 years	Secondary school		Entering higher education		
		Obtaining secondary qualification	Proportion per 100 on age group	Enrolled 1st year	% Enrolled 1st year on qualified sec. school	% Enrolled 1st year on age-group
	(1)	(2)	(2/1)	(4)	(4/2)	(4/1)
1980	833.857	333.253	40,0	242.422	72,7	29,1
1981	858.959	328.825	38,3	244.071	74,2	28,4
1982	875.795	338.823	38,7	226.421	66,8	25,8
1983	897.132	347.125	38,7	228.760	65,9	25,5
1984	933.862	375.587	40,2	256.611	68,3	27,4
1985	963.578	378.762	39,3	253.778	67,0	26,3
1986	978.751	382.216	39,0	243.028	63,5	24,8
1987	965.290	380.495	39,4	246.942	64,9	25,5
1992*	888.148	351.884	39,6	228.373	64,9	25,7
1997*	738.384	294.025	39,8	190.822	64,9	25,8
2002*	608.908	243.685	40,0	158.152	64,9	26,0
2007*	557.027	224.036	40,2	145.400	64,9	26,1

Source: Ministry of Education and National Institute for Statistics.

(*) Estimated

Table 2 - Higher Education Indicators.

Years	Students		Graduates	
	Total number (thousands)	Proportion per 10,000 of population	Total number (thousands)	Proportion per 10,000 of population
1961-62	288	57	23	5
1971-72	760	141	61	11
1981-82	1.025	181	74	13
1988-89	1.223	213	81	14

Source: National Institute for Statistics

Table 3 - Categories of minimum essential information on the characteristics of the education service provided.

a Name and address of organization

b Name of projected course

c Type of beneficiaries

d Maximum anticipated number of participants

e Minimum educational level for course entry

f Any professional requirements (in the case of courses for those already employed)

g Evaluation

h Certification issued

i Professional profile

l Objectives

m Contents

n Didactic methods

o Didactic aids

p Teaching staff

q Organizational methdos

r Duration of course in hours and days

s Calendar and location of the editions

Source: Lilia Infelise, (ed) "Item. Itinerari e modelli di formazione. Strumenti di lettura", ed. Etas libri, 1989.

Table 4 - The supply of professional education (1989-90).

Tipology	Number of courses			Number of hours			Number of participants		
	Public	Private	Total	Public	Private	Total	Public	Private	Total
Professional education: (a)	19.423	14.860	34.283	11.436.005	894.284	12.330.289	318.195	208.040	526.235
of which: Continuing p. e	10.301	14.635	24.936	3.296.225	796.774	4.092.999	211.207	204.890	416.097
of which: *(High level continuing p. e.)*	*(3.300)*	*(8.954)*	*(12.254)*	*(1.750.941)*	*(566.642)*	*(2.317.583)*	*(59.615)*	*(130.611)*	*(190.226)*

Source: Our elaboration on Dioikema figures.

Note: (a) Initial and continuing.

Table 5 - The receivers of professional education: the public system (1989-90).

Typology	Public education total			of which			of which		
				Public continuing education			Public high level continuing education		
	Courses	Hours	Participants	Courses	Hours	Participants	Courses	Hours	Participants
At work (a)	.. 126	9.162.763	209.136	2.930	1.850.637	52.293	2.130	1.394.441	36.918
In service (b)	5.547	1.064.137	120.695	5.547	1.064.137	120.695	991	254.995	12.123
At work/in service (c)	1 824	381.451	38.129	1.824	381.451	38.219	179	101.505	3.574
Others	926	827 654	13.145	-	-	-	-	-	-
Total	19.423	11.436.005	381.105	10.301	3.296.225	211.207	3.300	1.750.941	52.615

Source: Our elaboration (as in tab. 4)

Notes: (a) at work: courses for non employed people, without previous working experience.
(b) in service: courses for those already employed, or temporarily unemployed but with previous working experience.
(c) at work/ in service: courses for non employed, unemployed and employed people.

BEST COPY AVAILABLE

Table 6 - The receivers of professional education: the private system (1990).

Typology	Private education total			of which			of which		
				Private continuing education			Private high level continuing education		
	Courses	Hours	Participants	Courses	Hours	Participants	Courses	Hours	Participants
At work (a)	566	437.015	13.062	345	276.322	7.646	321	256.915	6.995
In service (b)	13.341	426.682	156.649	13.341	426.682	156.649	8.326	269.564	107.121
At work/in service (c)	949	121.181	19.147	949	121.181	19.147	307	80.418	7.498
Total	14.856	984.878	188.858	14.635	824.185	183.442	8.954	606.897	121.614

Source: Our elaboration (as in tab. 4)

Notes: (a) at work: courses for non employed people, without previous working experience.
(b) In service: courses for those already employed, or temporarily unemployed but with previous working experience.
(c) at work/ in service: courses for non employed, unemployed and employed people.

BEST COPY AVAILABLE

Table 7 - Higher Continuing professional education: number of Organizations and Centres (1990).

	Organizations	Centres
Private system	234	264
Public system	442	897
Total	676	1.161

Source: Our elaboration (as in tab.4).

Table 8 - Higher Continuing professional education: juridical nature of education centres (1990). (a)

	Private System		Public System	
	n.	%	n.	%
Local public authorities	29	13,1	193	26,1
Other public authorities	26	11,7	49	7,1
Non recognized association	27	12,2	211	28,5
Recognized association	15	6,8	206	27,8
Foundation	4	1,8	6	0,8
Commercial companies	95	43,0	16	2,1
Other private organizations	1	0,5	1	0,1
Consortium of public autorities	2	0,9	22	3,0
Consortium of firms	7	3,2	13	1,7
Mixed consortium	15	6,8	6	0,8
Consortium of associations	-	-	7	0,9
Other kind of organizations	-	-	9	1,1
Total	221	100,0	739	100,0

Source: Our elaboration (as in tab. 4)

Note (a): The figures on private system are referred to 221 centres on 264; those on public system to 739 centres on 897.

Table 9 - Higher continuing professional education: juridical nature of education centres linked to Universities (1990). (a)

Private system	N. centres
Commercial companies	3
Public Authorities	5
Non recognized association	1
Recognized association	2
Consortium of public authorities	1
Mixed consortium	8
Total	20
Public system	
Public Authorities	3
Non recognized association	3
Recognized association	2
Commercial companies	1
Mixed consortium	2
Total	11

Source: Our elaboration (as in tab. 4)

Note (a): Figures on the private system concern 20 centres on 23.

Table 10 - Higher continuing professional education: breakdown of centres by promoters. (1990).

Tipology of promoters	Public System	Private System
Universities	18	8
Firms	54	30
Public Administration	54	49
Business Associations	52	28
Trade unions	3	10
Cultural organizations	14	6
Religious organizations	3	5
Other	2	-
Total	200	136

Source: Our elaboration (as in tab. 4)

Table 11 - Higher Continuing professional education: concentration of production (1990).

Education Centers	Courses		Hours	
	Public System	Private System	Public System	Private System
Top 1	10,4	12,7	14,4	9,8
Top 3	22,0	27,1	26,5	22,7
Top 4	24,5	32,6	29,1	28,7
Top 6	29,0	37,8	33,0	37,9
Top 8	32,4	42,1	36,5	44,8
Top 10	35,1	46,1	39,4	49,9
Top 20	44,3	58,6	49,3	63,2
Top 50	61,4	79,6	65,4	82,5

Source: Our elaboration (as in tab. 4)

Table 12 - Average duration of courses: number of hours (1990).

	Public System hours	Private System hours	Public and private Systems hours
At work (a)	654,6	800,0	
In service (b)	257,3	28,0	
At work/in service	567,0	148,0	
General Average	531,0	54,6	

Source: Our elaboration (as in tab. 4)

Notes: (a) at work: courses for non employed people, without previous working experience.
(b) In service: courses for those already employed, or temporarily unemployed but with previous working experience.
(c) at work/ in service: courses for non employed, unemployed and employed people.

Table 13 - Higher continuing professional education: average duration of courses: degree of variability.

	Public System (1989-90)					Private System (1990)				
	Hours	Average	Courses	Standard Deviation	STD/ Average	Hours	Average	Courses	Standard Deviation	STD/ Average
At work (a)	1.394.441	654,6672	2.130	358,4548	54,7537	207.293	800,3591	259	511,9006	63,9588
In service (b)	254.995	257,3107	991	265,1694	103,0547	236.114	32,3754	7.293	64,0583	197,8610
At work/in service (c)	101.505	567,0671	179	421,1694	74,2715	49.579	261,9482	174	483,1469	184,4436
Total	1.750.941	530,5881	3.300	382,1591	72,0256	492.986	63,2910	7.726	194,5767	307,4318

Source: Our elaboration (as in tab. 4)

Notes: (a) at work: courses for non employed people, without previous working experience.
(b) in service: courses for those already employed, or temporarily unemployed but with previous working experience.
(c) at work/ in service: courses for non employed, unemployed and employed people.

Table 14 - Higher Continuing professional education: breakdown of education initiatives by time (1990). (a)

	N. Courses	%
Full time	6 332	88,8
Part time (morning)	196	2,7
Part time (afternoon)	106	1,5
Part time (evening)	199	2,8
Residential full time	301	4,2
Total	7.134	100,0

Source Our elaboration (as in tab 4)

Note (a) Figures are referred to 7,134 courses on 8,954.

Table 15 - Higher countinuing professional education: breakdown of education initiatives by didactic methods (1990). (a)

	N. of courses	Percentage
Traditional methods (b)	5 632	80,27
Active methods (c)	1 056	15,05
Low innovative level methods (d)	56	0,80
Stage	195	2,78
Other	77	1,10
Total	7.016	100,00

Source Our elaboration (as in tab 4)

Notes: (a) Figures are referred to 7.016 courses on 8,954.
(b) Traditional methods: classroom lessons, practical training
(c) Active methods: self-learning, projects, case studies, business games, discussions, study visits
(d) Low innovative level methods: seminars.

Table 16 - Higher continuing professional education, the private system: breakdown of education activities by final certification (1990). (a)

	None	Certification of attendance	Certificate of qualification	Certificate of specialization	*Ex Lege*
Number	5	1.513	59	56	1
Percentage	0,3	92,6	3,6	3,4	0,1

Source: Our elaboration (as in tab. 4)

Note (a): Figures are referred to 1,634 courses on 8,954.

Table 17 - Higher continuing professional education, the public system: breakdown of education activities by final certification (1990)

	None		Certificaton of attendance		Certificate of qualification		Certificate of specialization		*Ex Lege*		Total	
	n.	%	n.	%	n.	%	n.	%	n.	%	n.	%
At work (a)	10	18,2	418	42,1	1.355	87,2	337	51,1	10	26,3	2.329	62,9
In service (b)	7	12,7	553	55,7	156	10,0	257	38,9	18	47,4	1.108	30,0
At work/in service (c)	38	69,1	22	2,2	43	2,8	66	10,0	10	26,3	263	7,1
Total	55	100,0	993	100,0	1.554	100,0	660	100,0	38	100,0	3.700	100,0

Source: Our elaboration (as in tab. 4)

Notes: (a) at work: courses for non employed people, without previous working experiences.
(b) in service: courses for those already employed, or temporarily unemployed but with previous working experience.
(c) at work/ in service: courses for non employed, unemployed and employed people.

BEST COPY AVAILABLE

able 18 - Number of Courses Breakdown by Regions and Sectors (1990)

egions	Agriculture			Environment			Handicraft			Cultural Heritage			Industry			Intersectorial			Non oriented			Services			Total		
	Priv.	Publ.	Tot.	Priv.	Publ.	Tot.	Priv.	Publ.	Tot.	Priv.	Publ.	Tot.	Priv.	Publ.	Tot.	Priv.	Publ.	Tot.	Priv.	Publ.	Tot.	Priv.	Publ.	Tot.	Priv.	Publ.	Tot.
orth West	5	7	12	38	16	54	-	14	14	5	7	12	369	170	539	3.095	450	3.545	-	1	1	771	145	916	4.283	810	5.093
orth East	2	46	48	27	13	40	4	13	17	1	3	4	74	111	185	497	220	717	-	9	9	286	118	404	891	533	1.424
entre	-	23	23	32	46	78	2	46	48	8	16	24	86	126	212	1.958	430	2.388	-	11	11	593	366	959	2.679	1.064	3.743
outh	-	63	63	81	153	234	-	-	-	9	54	63	72	369	441	1.035	1.044	2.079	-	-	-	162	756	918	1.359	2.439	3.798
lands	-	21	21	-	34	34	-	12	12	-	14	14	-	27	27	10	211	221	-	3	3	4	212	216	14	534	548
on specified reas	14	-	14	9		9	-		-	-	-	-	44		44	602	-	602	-	-	-	265	-	265	934		934
otal	21	160	181	187	262	449	6	85	91	23	94	117	645	803	1.448	7.197	2.355	9.552	-	24	24	2.081	1597	3.678	10.160	5.380	15.540

ource Our elaboration (as in tab 4)

BEST COPY AVAILABLE

Table 19 - Number of courses holded by National Research Council (CNR) staff members (1989)

Discipline Group	N of CNR Institutes	N of Institutes whose staff members run univ. courses	N of university courses	Average courses per institute
Math. Sciences	8	5	30	6.0
Physical Sciences	30	19	104	5.5
Chemistry	55	39	342	8.8
Medical Sciences and Biology	43	35	216	6.2
Geology	27	18	140	7.8
Agricultural Sciences	41	26	103	4.0
Engineering and Architecture	26	19	169	8.9
Humanities	16	11	41	3.7
Law and Political Sciences	4	2	4	2.0
Economics and Social Sciences	8	4	8	2.0
Technological Research	21	10	34	3.4
Total	279	188	1.191	6.3

Source: National Research Council.

Table 20 - University degree thesis within CNR Institutes (1989).

Discipline Group	N. of CNR Institutes	N. of Institutes with thesis	N. of thesis	Average number of thesis per institute
Math Sciences	8	5	40	8,0
Physical Sciences	30	20	118	5,9
Chemistry	55	32	205	6,4
Medical Sciences and Biology	43	25	165	6,6
Geology	27	15	138	9,2
Agricultural Sciences	41	29	84	2,9
Engineering and Architecture	26	14	126	9,0
Humanities	16	6	52	8,7
Law and Political Sciences	4	1	5	5,0
Economics and Social Sciences	8	2	10	5,0
Technological Research	21	12	55	4,6
Total	279	161	998	6,2

Source: National Research Council.

Table 21 - Courses, schools and seminars organized by CNR Institutes (1989).

Discipline Group	N. of institutes organizing courses	N. of courses			
		Internal audience	External audience	Mixed audience	Total
Math. Sciences	8	-	-	184	184
Physical Sciences	13	14	1	134	149
Chemistry	26	27	37	181	245
Medical Sciences and Biology	21	4	2	204	210
Geology	5	1	27	32	60
Agricultural Sciences	18	3	1	46	50
Engineering and Architecture	5	7	5	37	49
Humanities	6	13	-	42	55
Law and Political Sciences	-	-	-	-	-
Economics and Social Sciences	3	-	-	37	37
Technological Research	10	5	25	37	67
Total	111	74	98	934	1.106

Source: National Research Council.

Table 22 - Education and training activities organized outside CNR involving CNR staff members (1989).

Discipline Group	N. of CNR Istitutes involved in courses	Total n. of hours	Location of activities					Total n. of courses
			Public Institutions	Firms	International Organizations	Universities	Other locations	
Math. Sciences	4	172	11	4	-	16	1	32
Physical Sciences	19	735	37	11	5	47	47	147
Chemistry	29	953	30	11	-	72	73	186
Medical Sciences and Biology	25	1.298	33	10	4	107	55	209
Geology	12	497	3	2	5	8	20	38
Agricultural Sciences	19	988	28	4	6	20	26	84
Engineering and Architecture	12	632	1	1	-	36	15	53
Humanities	10	269	14	2	1	23	9	49
Law and Political Sciences	2	168	1	-	-	4	2	7
Economics and Social Sciences	1	16	-	-	-	2	1	3
Technological Research	12	869	19	16	15	15	32	97
Total	145	6.597	177	61	36	350	281	905

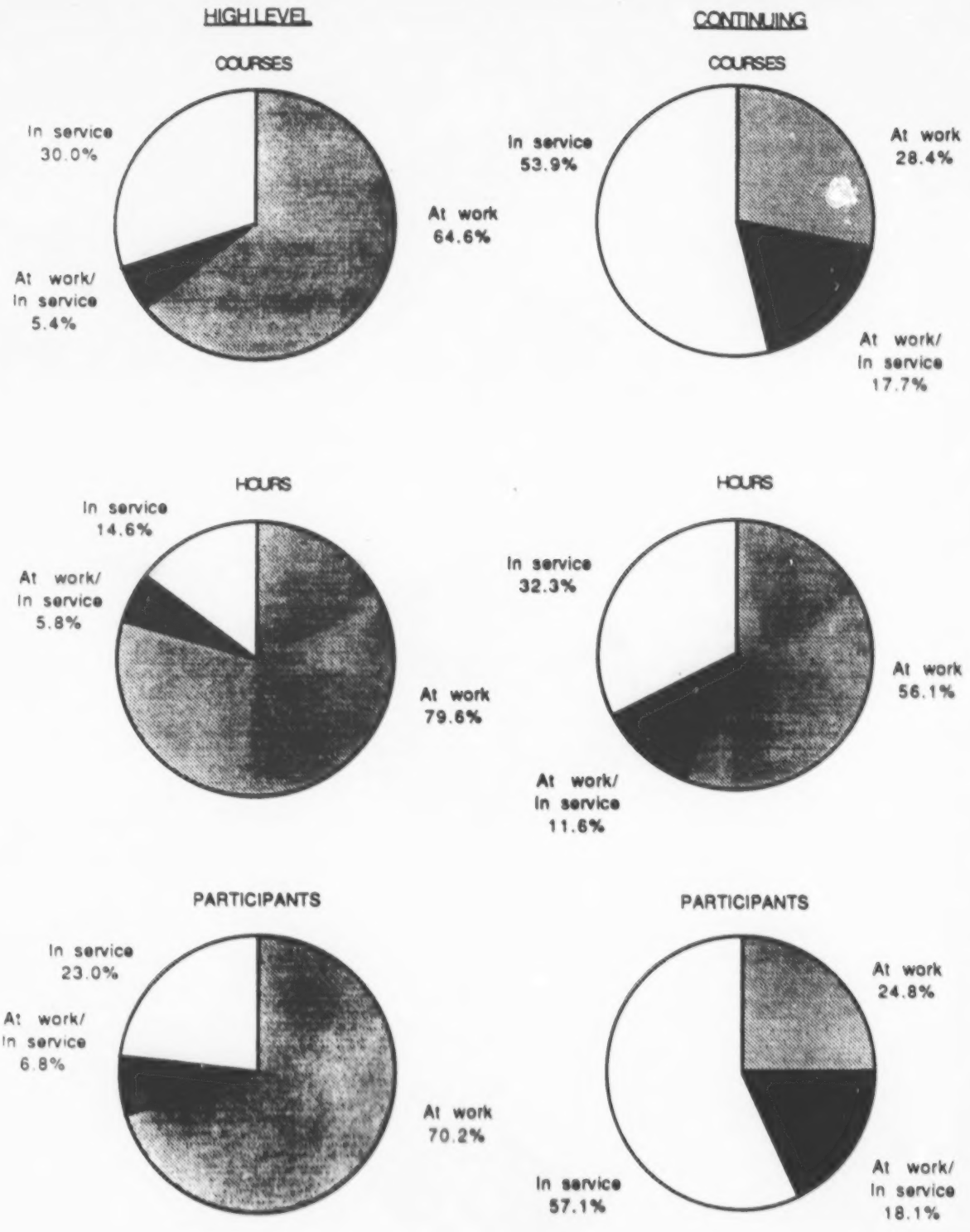
Source: National Research Council

Table 23 - Training activities within CNR Institutes (1989).

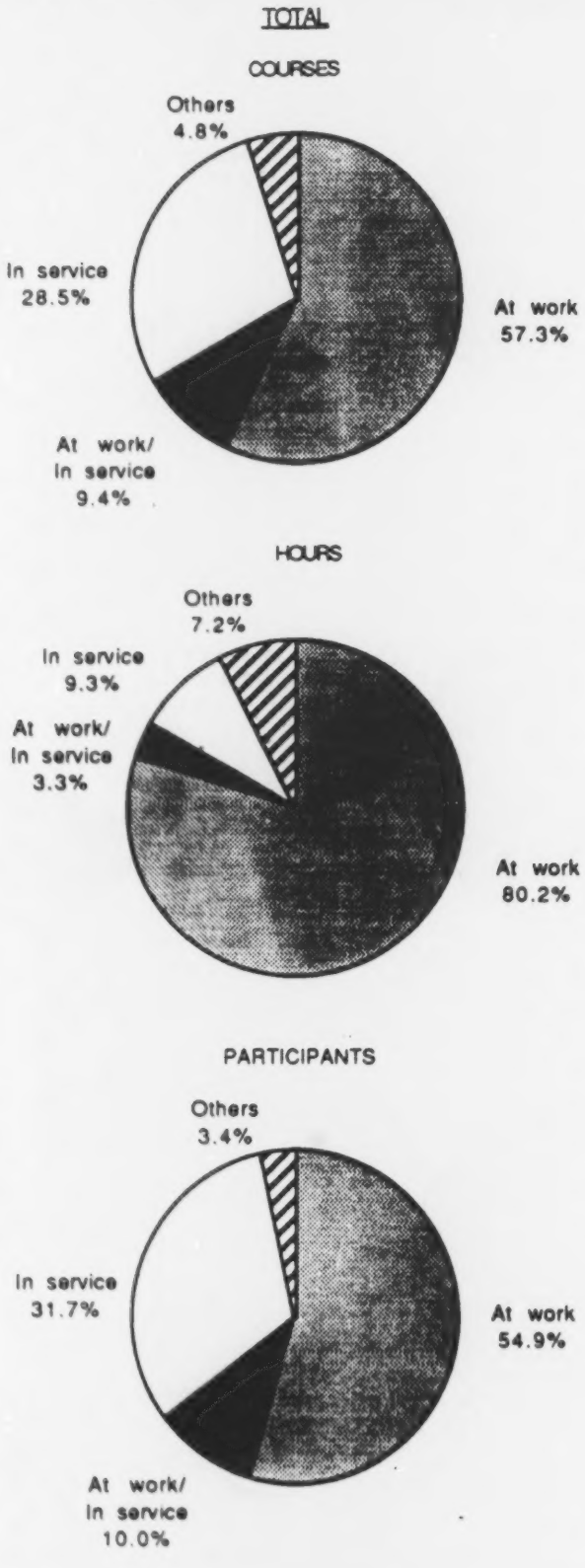
Discipline Group	N. of CNR Institutes which are training staff	Total number of people involved
Math. Sciences	6	33
Physical Sciences	19	173
Chemistry	43	440
Medical Sciences and Biology	32	468
Geology	20	177
Agricultural Sciences	31	202
Engineering and Architecture	16	113
Humanities	6	75
Law and Political Sciences	1	1
Economics and Social Sciences	6	12
Technological Research	13	142
Total	193	1.836

Source: National Research Council.

Fig. 1 - The objectives of professional education: the public system

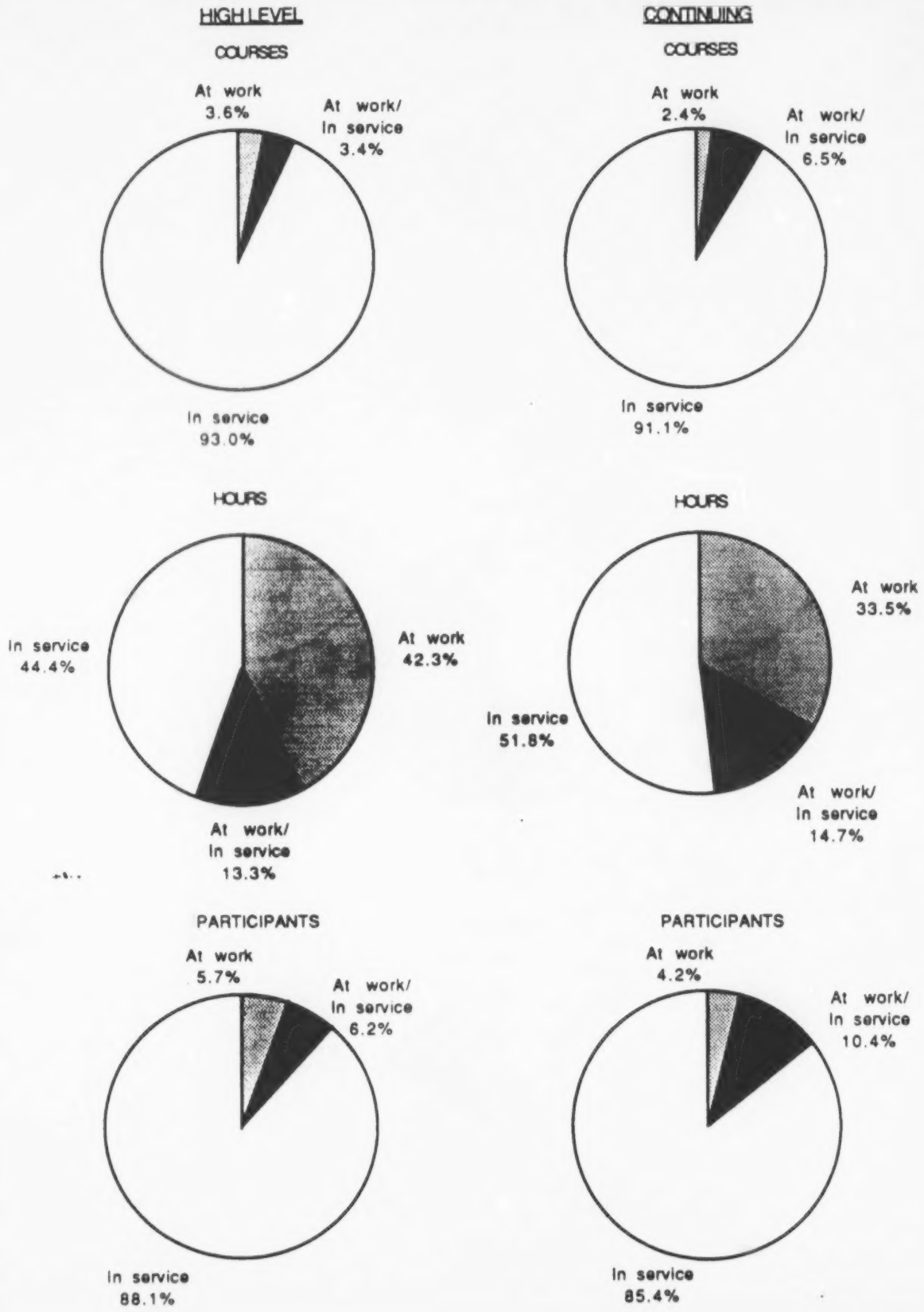


(Fig. 1 follows)

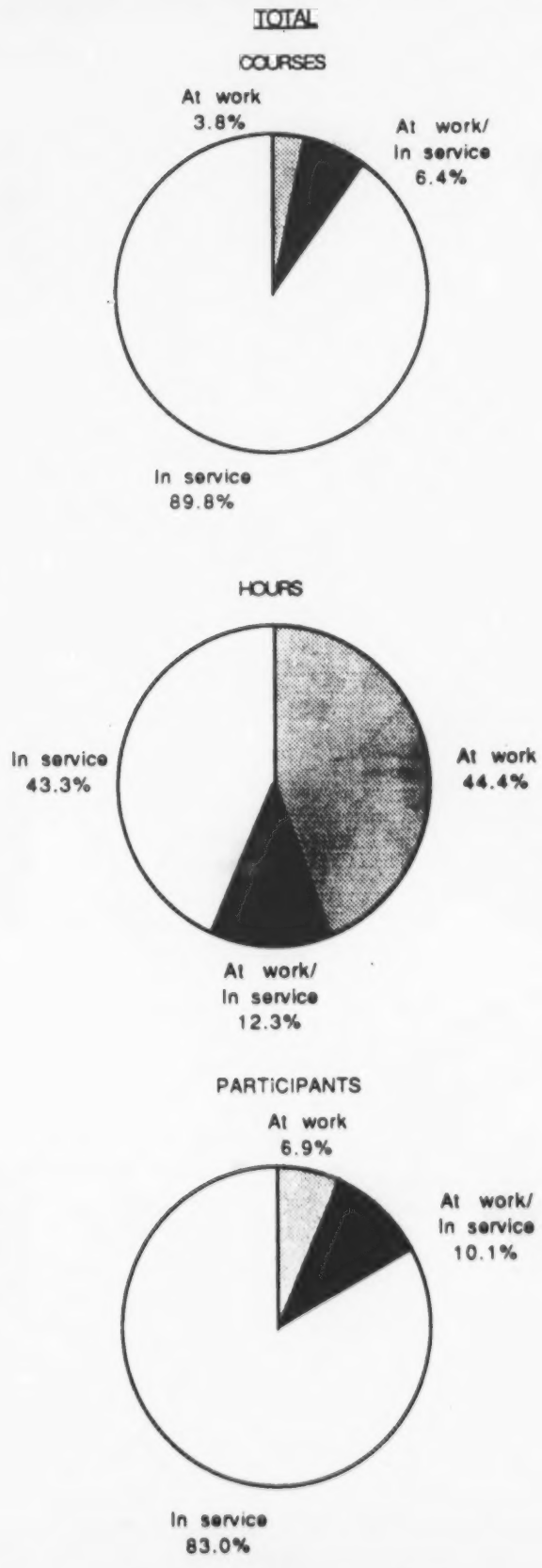


Source: Table 5

Fig. 2 - The objectives of professional education: the private system

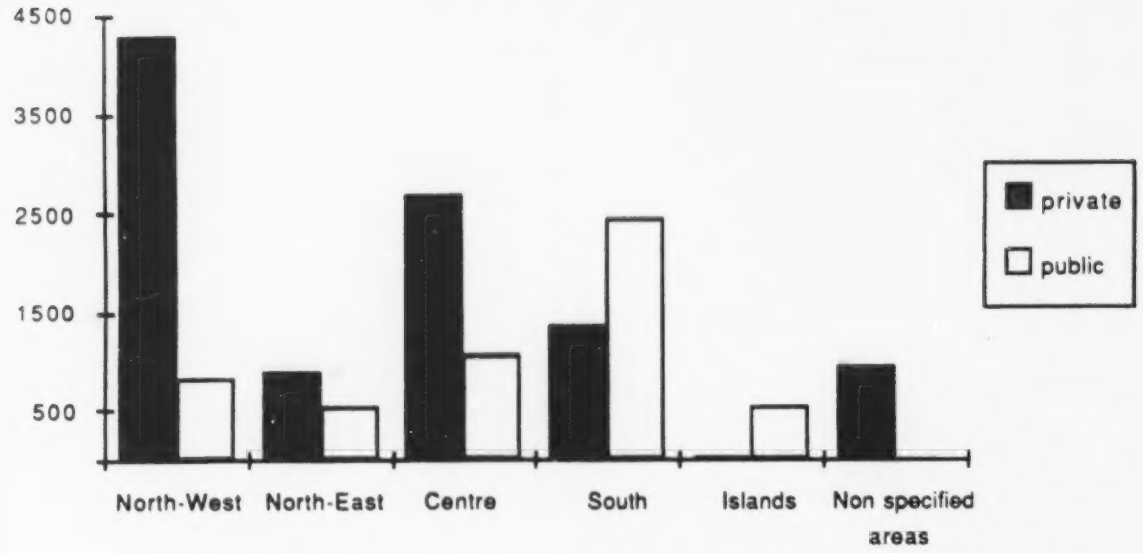


(Fig. 2 follows)



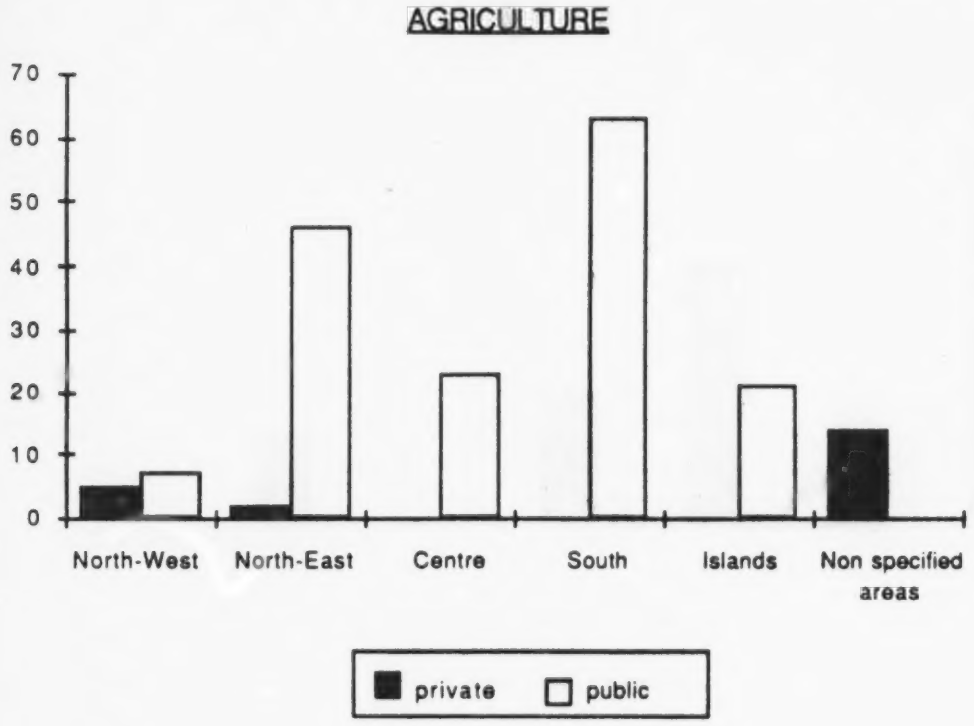
Source: Table 6

Fig. 3 - Number of Courses: Breakdown by Regions



Source: Table 18

Fig. 4 - Number of Courses by Regions and Sectors



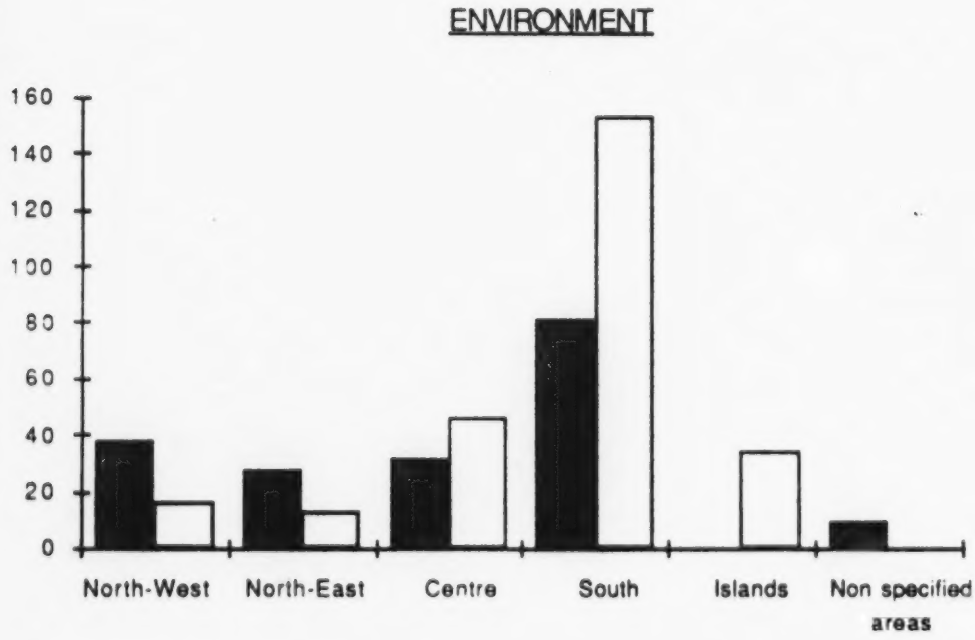
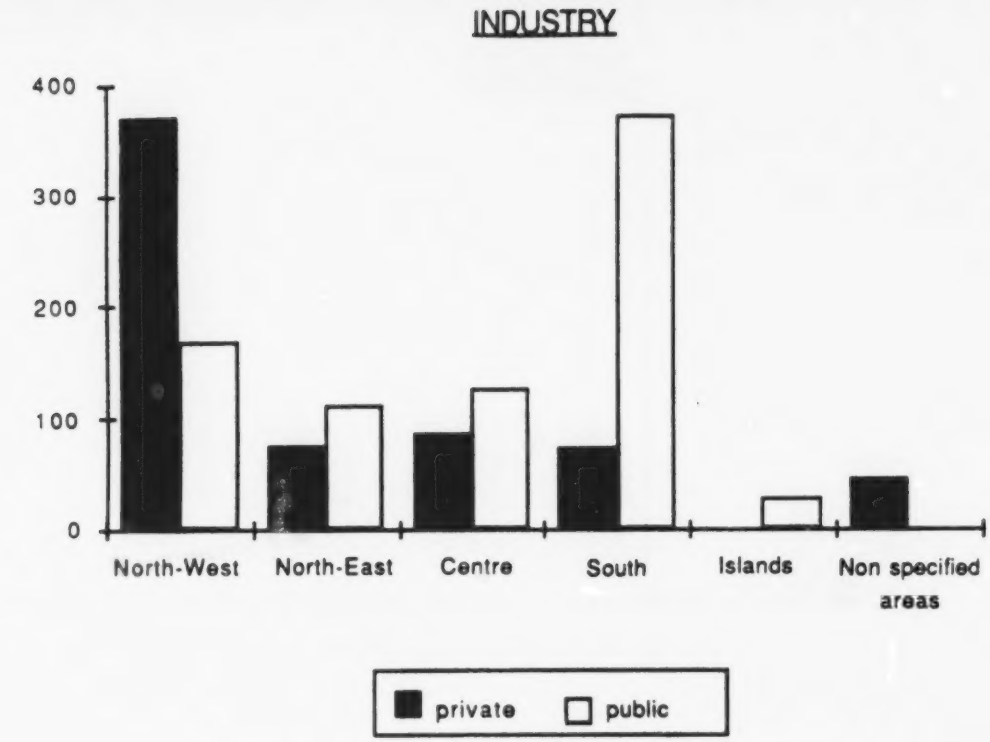


Fig. 4 follows



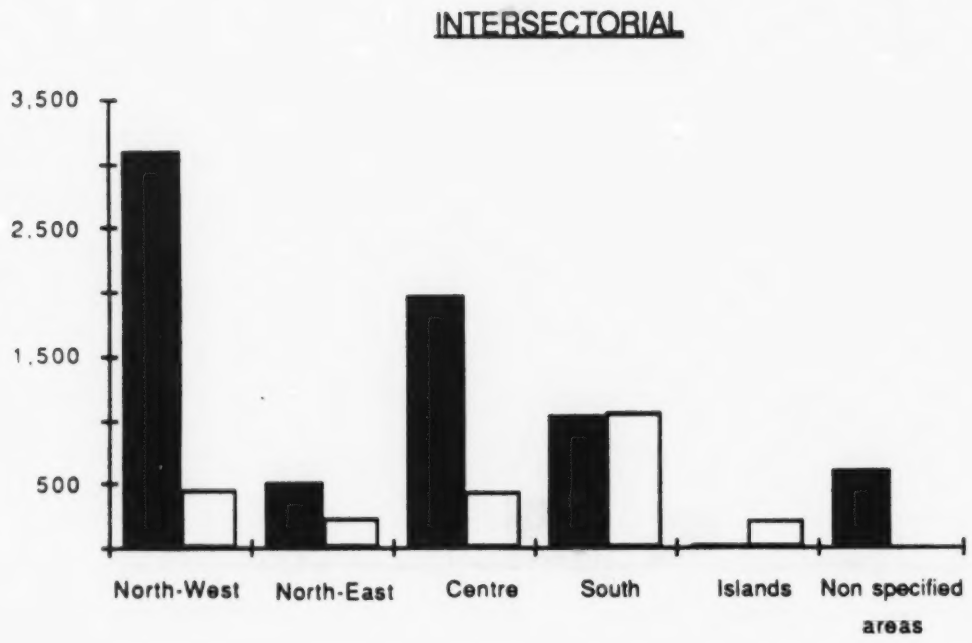
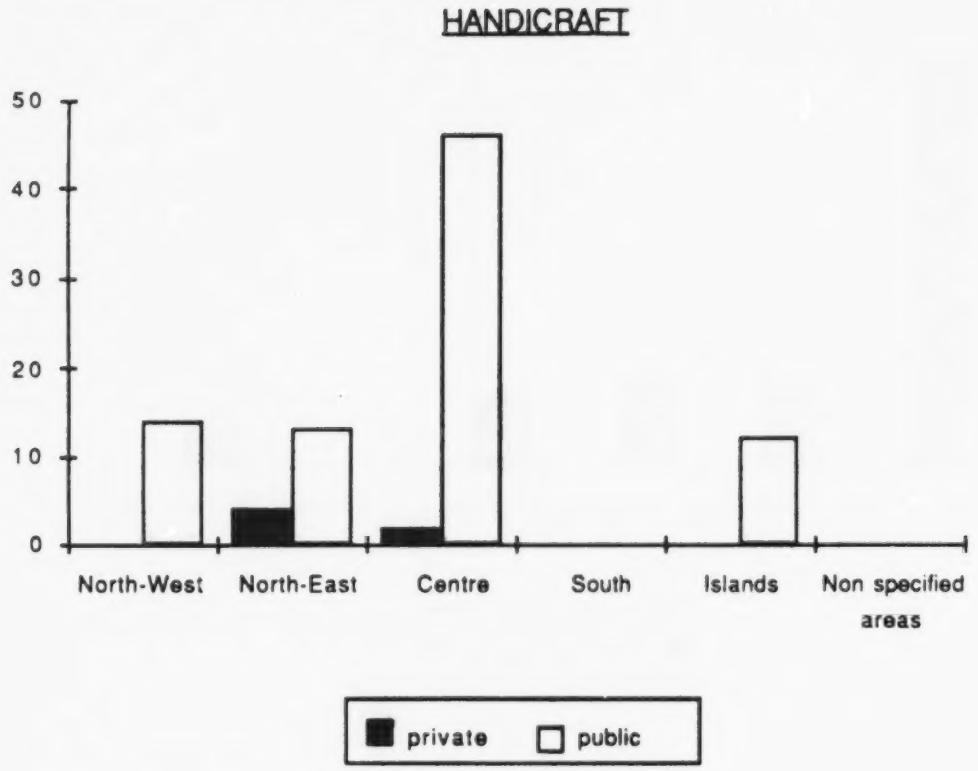


Fig. 4 follows



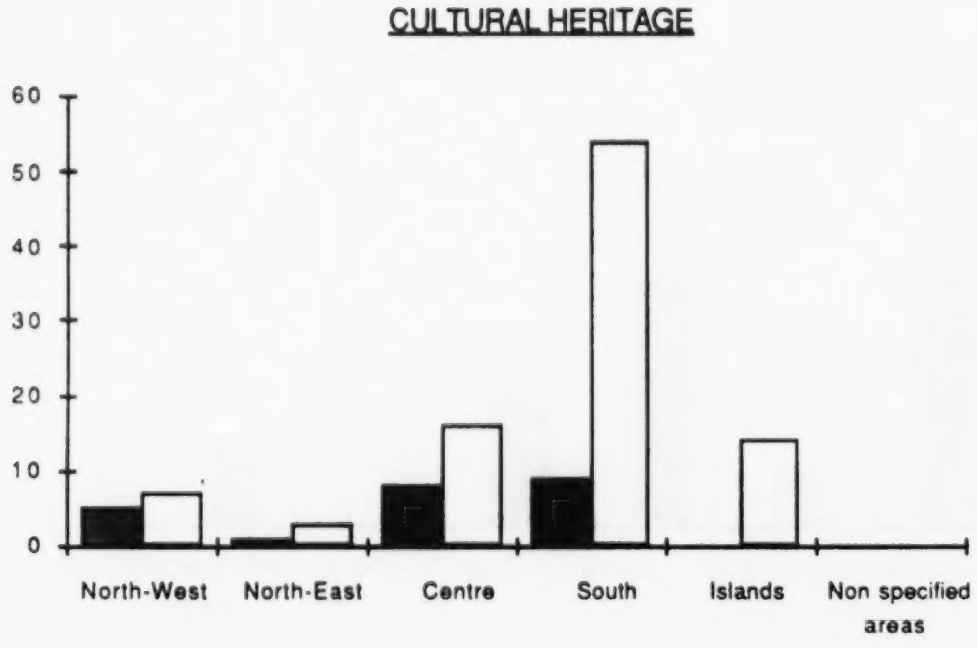
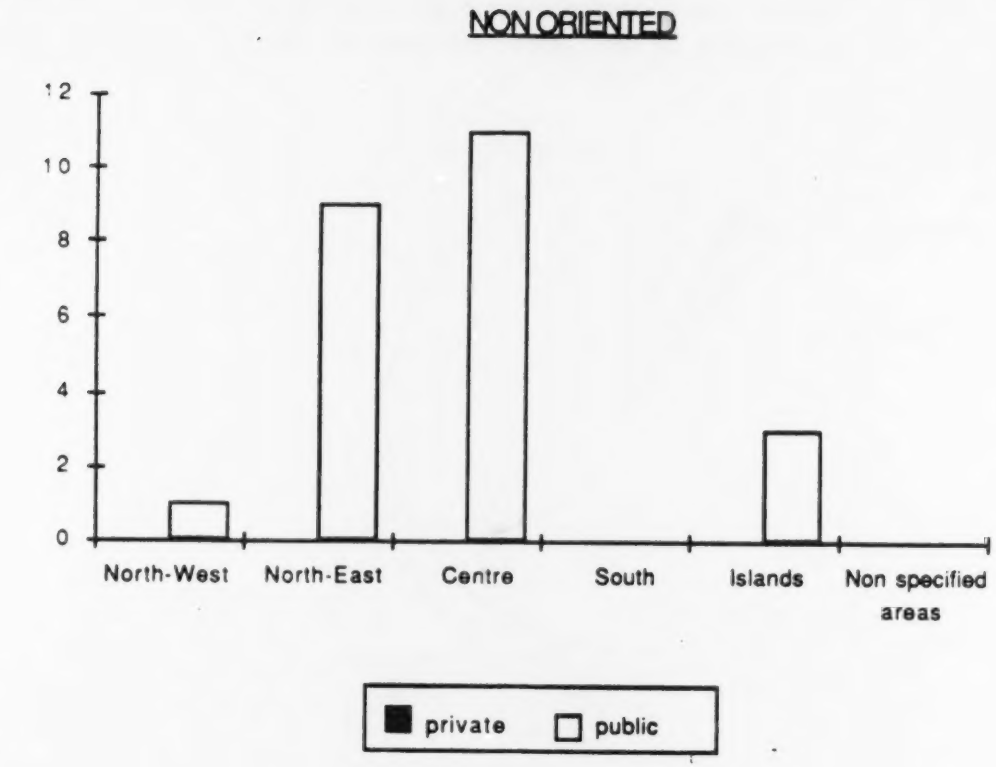
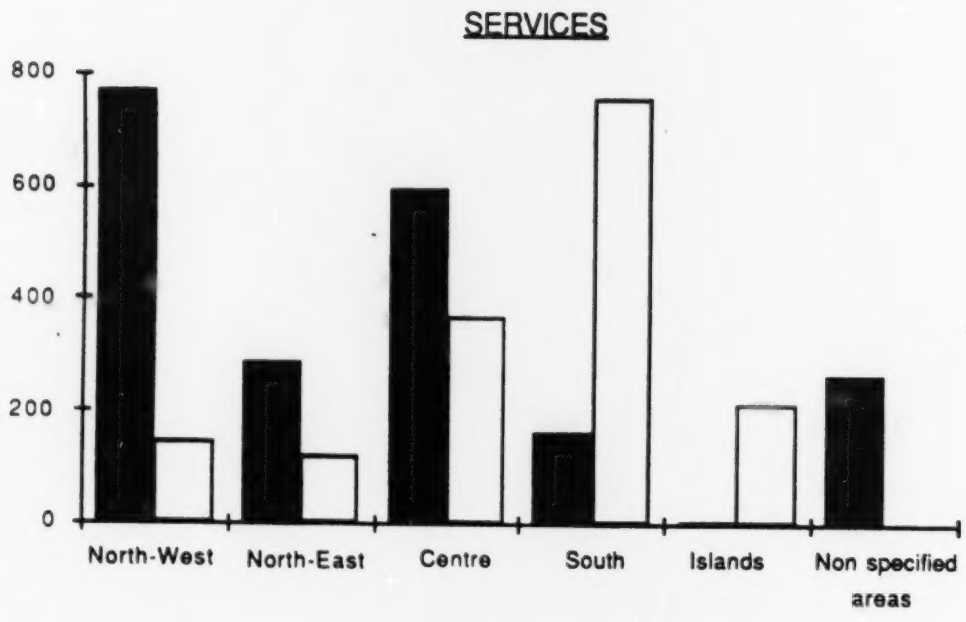


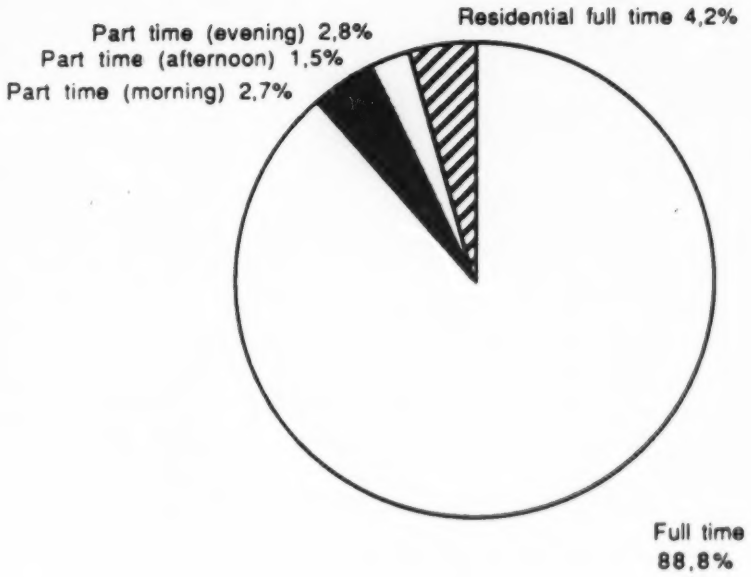
Fig. 4 follows





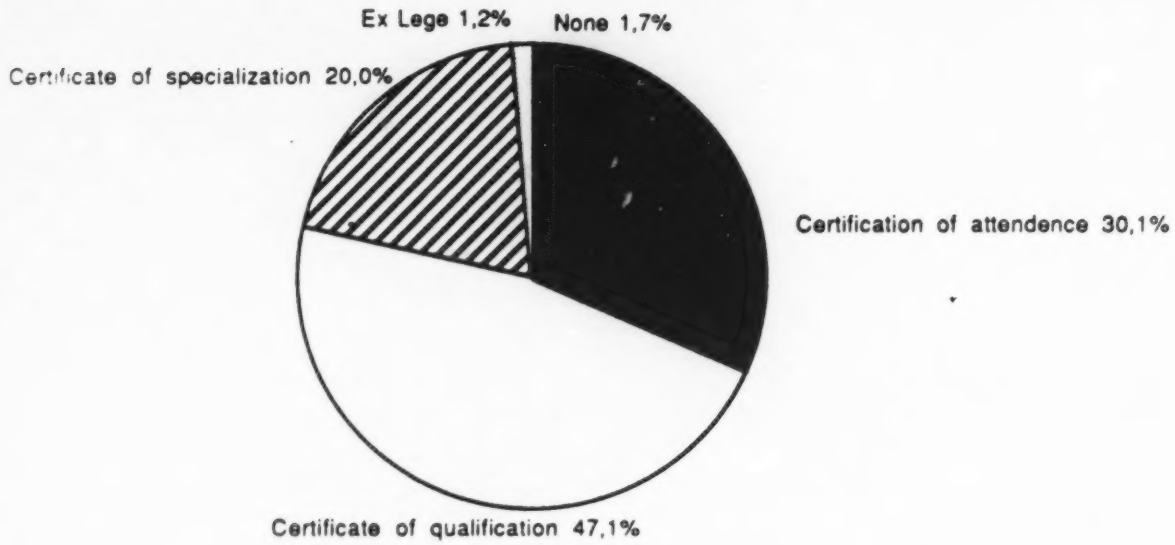
Source: Table 18

Fig. 5 - Higher continuing professional education: Breakdown of education initiative by time



Source: Table. 14

Fig. 6 - Higher continuing professional education, the public system: breakdown of education activities by final certification



Source: Table. 17